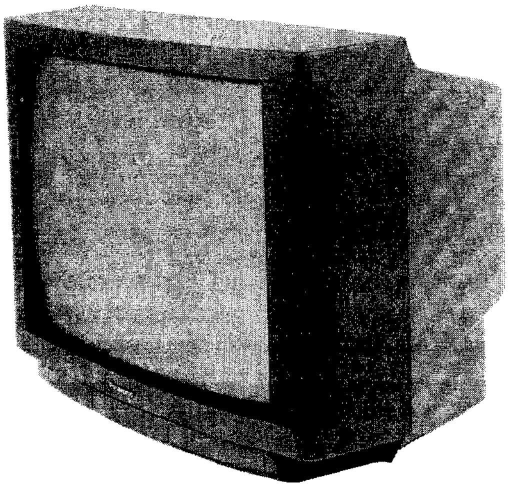
ORDER NO. SM-94007

Service Manual

Colour Television

TX-28X2E
TX-25X2E
ALPHA-4 Chassis



Specifications

(Information in brackets refer to TX-25X2E)

Power Source :	220-240 V AC, 50Hz
Power Consumption :	103W (98W)
Aerial Impedance :	75Ω unbalanced, Coaxial Type
Receiving System :	PAL-B/G, PAL- 60
Receiving Channels :	VHF E2 - E12 VHF H1 - H2 (ITALY) VHF A - H (ITALY) UHF E21 - E69 CATV (S01 - S05) CATV S1 - S10 (M1 - M10) CATV S11 - S20 (U1 -U10) CATV S21 - S41 (HYPERBAND)

Intermediate Frequency :	Video	38.9 MHz
	Sound	33.4 MHz
	Colour	34.47 MHz (PAL)

Video / Audio Terminals :

AV1 IN	Video (21 pin)	1 Vp-p 75Ω
	Audio (21 pin)	500 mV rms 10kΩ
	RGB (21 pin)	
AV1 OUT	Video (21 pin)	1 Vp-p 75Ω
	Audio (21 pin)	500 mV rms1kΩ
AV2 IN	Video (21 pin)	1 Vp-p 75Ω
	Audio (21 pin)	500 mV rms10 kΩ
	S-Video IN (21 pin)	Y : 1 Vp-p 75Ω C : 0.3 Vp-p 75Ω
AV2 OUT	Video (21 pin)	1 Vp-p 75Ω
	Audio (21 pin)	500 mV rms1kΩ
	Audio (RCA x 2)	500 mV rms1kΩ
AV3 IN	S-Video IN (4-pin)	Y : 1 Vp-p 75Ω C: 0.3Vp-p 75Ω
	Audio (RCA x 2)	500 mV rms10kΩ
	Video (RCA x 1)	1 Vp-p 75Ω

High Voltage :	27.5kV (+0.7/-1.0)kV at zero beam current.
Picture Tube :	66cm (59 cm) V FST 110° measured diagonally.
Audio Output :	
Internal Speaker	2 x 10 W (Music Power) 8 Ω Impedance
Speakers	2 : 12.5cm x 7.5cm Oval
Headphones	1 x 8 Ω Impedance
Accessories supplied :	Remote Control R6 (UM3) Battery.
Dimensions :	Height : 551mm (507mm) Width : 686mm (635mm) Depth : 489mm (467mm)
Net Weight	38kg (32.5kg)

Specifications are subject to change without notice.
Weight and dimensions shown are approximate.

Panasonic

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SAFETY PRECAUTIONS

General Guide Lines

1. It is advisable to insert an isolation transformer in the AC supply before servicing a hot chassis.
2. When servicing, observe the original lead dress in the high voltage circuits. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
3. After servicing, see that all the protective devices such as insulation barriers, insulation papers, shields and isolation R−C combinations are correctly installed.
4. When the receiver is not being used for a long period of time, unplug the power cord from the AC outlet.
5. Potentials as high as 29.0 kV are present when this receiver is in operation. Operation of the receiver without the rear cover involves the danger of a shock hazard from the receiver power supply. Servicing should not be attempted by anyone who is not familiar with the precautions necessary when working on high voltage equipment. Always discharge the anode of the picture to the chassis before handling the tube.
6. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazards.

Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs of the plug.
2. Turn on the receiver's power switch.
3. Measure the resistance value with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the receiver, such as screw heads, aerials , connectors, control shafts etc. When the exposed metallic part has a return path to the chassis the reading should be between 4M ohm and 20M ohm. When the exposed metal does not have a return path to the chassis the reading must be infinite.

Leakage Current Hot Check

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 2k ohm 10W resistor in series with an exposed metallic part on the receiver and an earth such as a water pipe.
3. Use an AC voltmeter with high impedance to measure the potential across the resistor.
4. Check each exposed Metallic part and check the voltage at each point.
5. Reverse the AC plug at the outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 1.4 Vrms. In case a measurement is outside the limits specified, there is a possibility of a shock hazard, and the receiver should be repaired and rechecked before it is returned to the customer.

HOT CHECK CIRCUIT

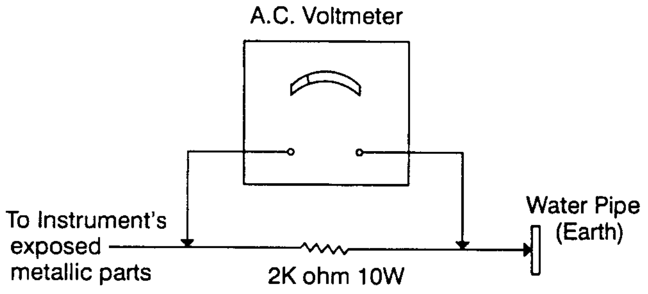


Fig.1

X−Radiation Warning

1. The potential sources of X−Radiation in TV sets are the high voltage section and the picture tube.
2. When using a picture tube test jig for service ensure that the jig is capable of handling 29.0 kV without causing X−Radiation.

NOTE : It is important to use an accurate periodically calibrated high voltage meter

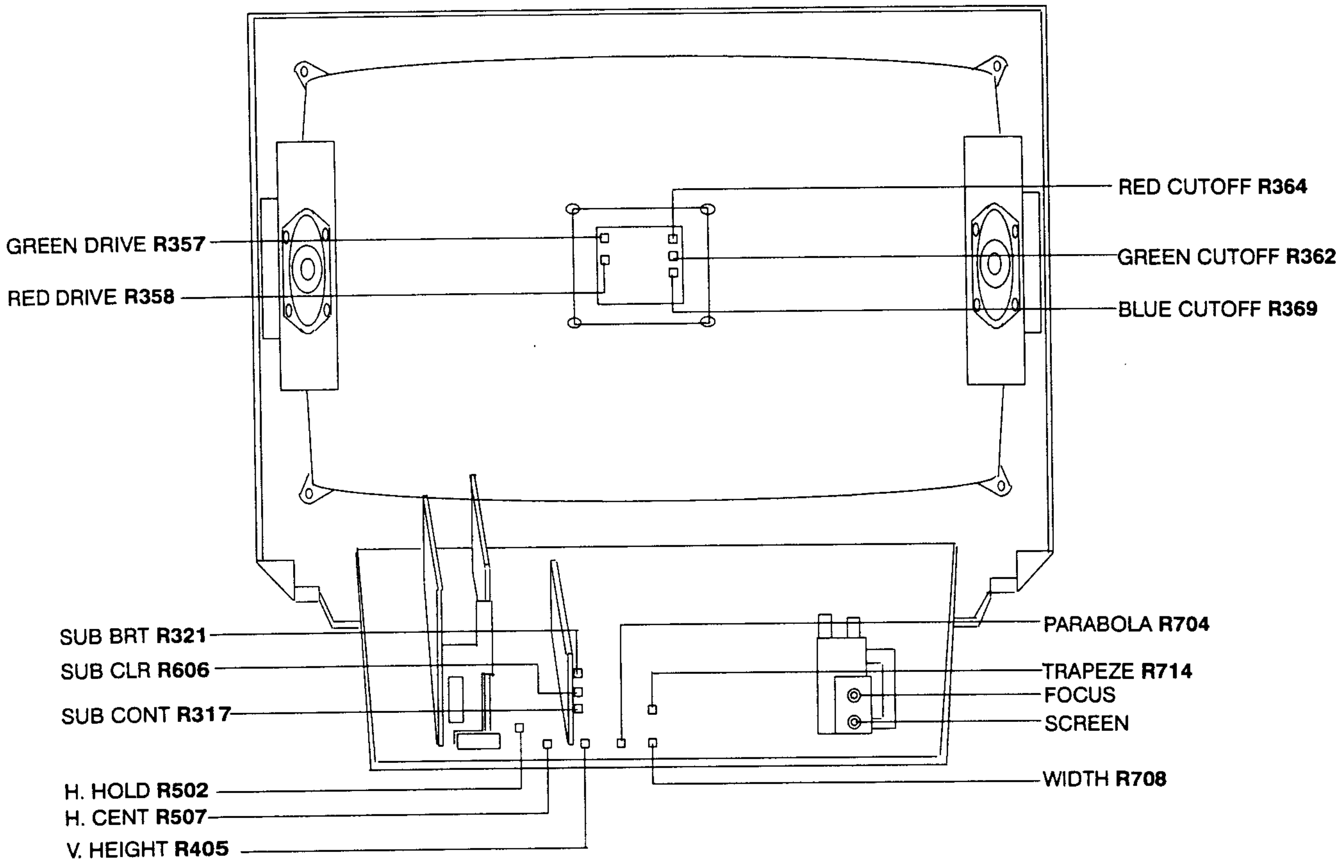
1. Set the brightness to minimum.
2. Measure the high voltage. The meter should indicate 27.5kV(+0.7/−1.0)kV, if the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.
3. To prevent an X−Radiation possibility, it is essential to use the specified tube.

Shut Down Circuit Test

This test must be made as a final check before the set is returned to the customer.

1. Receive the Philips pattern.
2. Check that the shut down circuit functions when −60V is applied to TPE7, but does not function when −40V is applied.

LOCATION OF CONTROLS


RED CUTOFF R364
GREEN DRIVE R357
GREEN CUTOFF R362
RED DRIVE R358
BLUE CUTOFF R369
SUB BRT R321
PARABOLA R704
SUB CLR R606
TRAPEZE R714
FOCUS
SUB CONT R317
SCREEN
H. HOLD R502
WIDTH R708
H. CENT R507
V. HEIGHT R405

SERVICE HINTS

How to remove the rear cover

1. Insert a flat blade screwdriver into the slot of each rear cover fixing clip and release the 6 rear cover fixing clips as shown in Fig.3.
2. Remove the screws (A) as shown Fig.4.

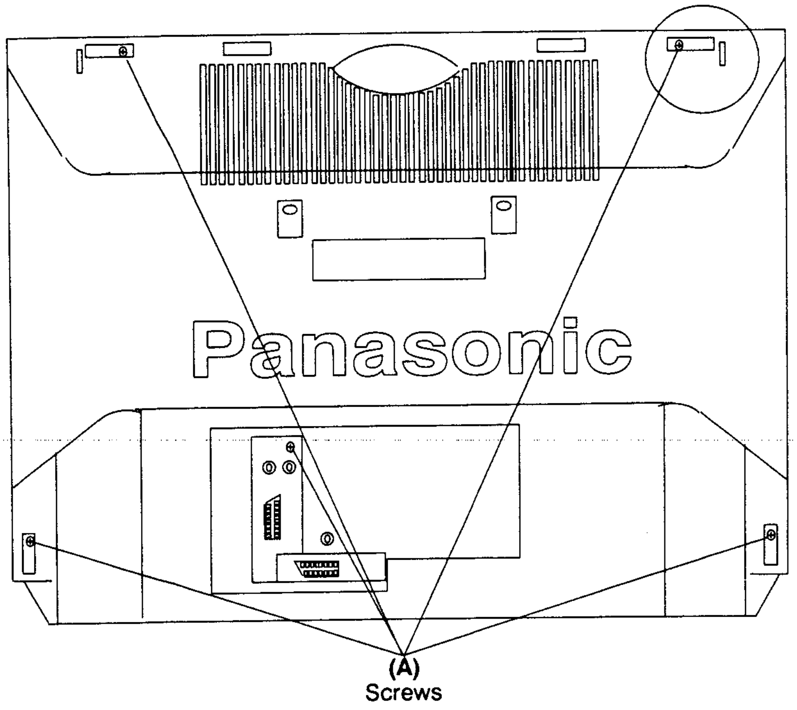

Panasonic
(A)
Screws

Fig.4

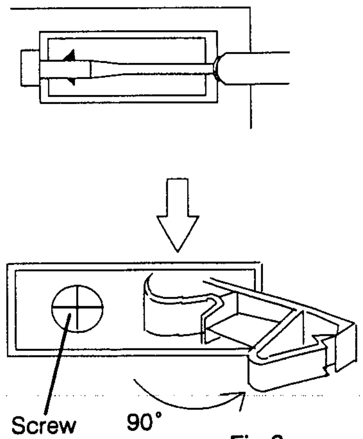


Fig.3

HOW TO MOVE THE CHASSIS INTO SERVICE POSITION

1. Remove screw (B) from the front AV panel (Fig.5), remove screws (C) from either side of the control panel then lift the plastic clips and pull the chassis towards you (Fig.6).
2. Release the respective wiring clips and turn the chassis through 90°, anti-clockwise, as shown in Fig.7.
3. Clip the heatsink (D) onto the metal bracket as shown in Fig.8.
4. After servicing ensure all wiring is returned to its original position before returning the receiver to the customer

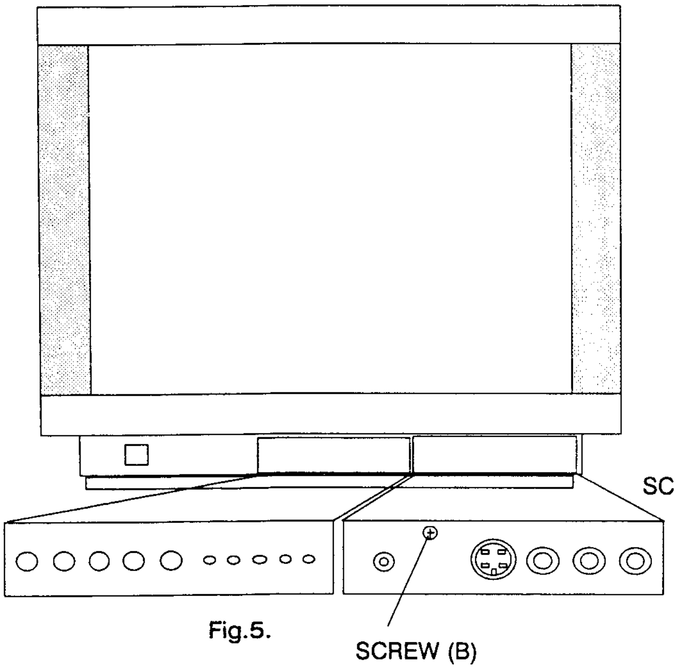


Fig.5.

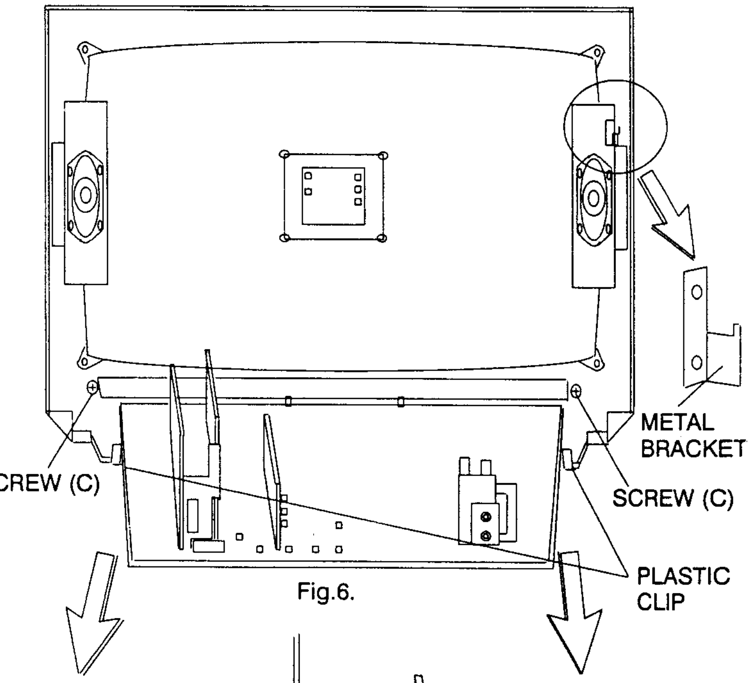

SCREW (C)
METAL
BRACKET
SCREW (C)
PLASTIC
CLIP

Fig.6.

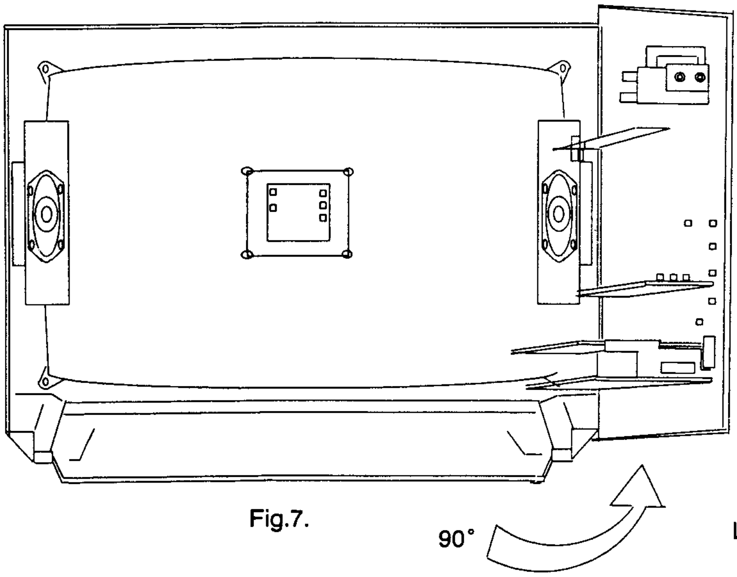


Fig.7.

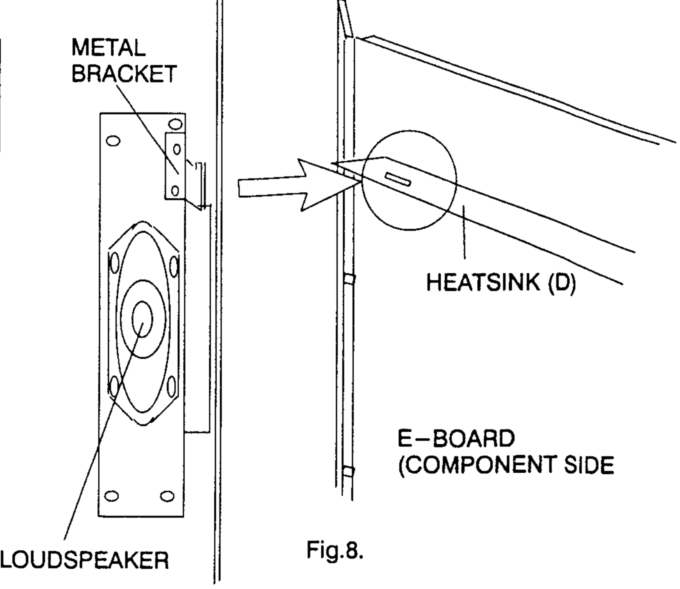

METAL
BRACKET
HEATSINK (D)
E-BOARD
(COMPONENT SIDE
LOUDSPEAKER

Fig.8.

SERVICE POSITION FOR B,H,C BOARDS.

1. Remove the board that is to be worked on from the main circuit board (E-board)..
2. Connect the extention leads between the chosen board and the E-board, position the board away from the E-board and ensure that they are not touching..
3. After servicing ensure all wiring is returned to its original position before returning the receiver to the customer.
NOTE: The extention lead kit is supplied as a service kit, part number TZSEL000.

ADJUSTMENTS

ITEM/PREPARATION	ADJUSTMENT PROCEDURE
+B VOLTAGE 1. Operate the TV set. 2. Set controls to : Brightness minimum. Sub brightness minimum.	1 Confirm the indicated test points for the specified voltage. **TPE1:** 150.0 +/-1.5V **TPE5:** 12.0 +/-1.0V **TPE2:** 5.0 +/-0.3V **TPE9:** 31.0 +/-2.5V **TPE3:** 30.0 +/-1.0V **TPE28:** 28.0 +/-1.0V **TPE4:** 15.5 +/-1.0V **TPE10:** 210.0 +/-10.0V **TPE66:** 8.0 +/-1.0V
AFC 1. Supply 38.9MHz continuous wave from an oscillator to **TPB20** (0.5V p-p, 75Ω terminated) 2. Connect a DC voltmeter to **TPB25**. 3. Operate the TV set.	1. Adjust **L106** so that the voltage at **TPB25** becomes 4.0 (+/- 0.5V). 2. Change the frequency and confirm the voltage as shown below. +100KHz less than 1.5V. −100KHz more than 5.5V.
RF AGC 1. Receive a Philips Pattern. 2. Set the input level to 65dB +/-2dB (75Ω open). 3. Connect an oscilloscope between **TPB24** and earth in DC mode.	1. Turn RF AGC control **(R128)** fully clockwise. 2. Slowly turn **R128** counterclockwise to set it at the point before the voltage at **TPB24** drops. **NOTE:** In this case, gain range of the oscilloscope is 1V/div, and set **R128** to a point where this voltage drops by 0.2V.
HIGH VOLTAGE 1. Receive a cross hatch pattern. 2. Set controls to: Brightness minimum. Contrast minimum. Sub brightness minimum. (Zero beam current)	1. Connect a DC voltmeter to **TPE1** and confirm the Voltage is 150V (+/- 1.5V). 2. Connect a high-voltage meter (Electrostatic type) to the anode of the picture tube. 3. Confirm that the high voltage is within a range of 27.5kV(+0.7/1.0)kV.
CUT OFF VOLTAGE ADJUSTMENT 1. Receive a black and white signal. 2. Degauss the CRT externally. 3. Turn the SCREEN VR on the FBT fully counter-clockwise (minimum voltage), and set **R357**,**R358** to centre position. 4. Set the service switch **S401** to SERVICE position.	1. Connect a DC Voltmeter to **TPY1**, **TPY2** and **TPY3**, and in turn adjust **R362**, **R369** and **R364** (CUT OFF) set the voltages at each test point to190V +/- 3V. 2. Slowly turn the SCREEN control clockwise to the point where one of the RGB beams just appears on the CRT. 3. Leave the CUT OFF control of the colour which appeared at step 2 as it is, and turn the remaining CUT OFF controls clockwise so a white horizontal line appears on the CRT 4. Reset the service switch to the NORMAL position.

ADJUSTMENTS

SUB CONTRAST

1. Receive a Philips pattern.

   (Input level 75dB).
2. Connect an oscilloscope to **TPC15 (TPE15).**
3. Set controls to :

Brightness	minimum
Contrast	maximum
Colour	minimum
Sub colour	minimum
Sharpness	centre

4. Connect a short jump wire between **TPE7** and earth.

1. Adjust Sub brightness **(R321)** to set the black level to 0.2V.
2. Adjust the Sub contrast **(R317)** to set the drive voltage to 2.8V+/− 0.1Vp−p (2.6V +/− 0.1Vp−p for TX−25X2E).
3. Remove the earth from **TPE7**.

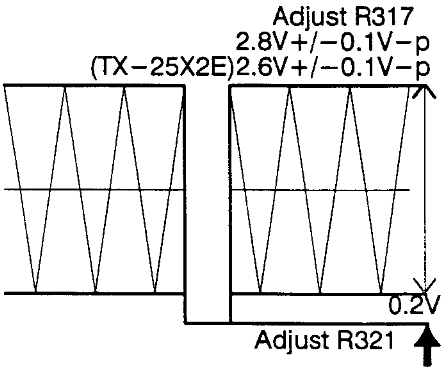


Fig.9.

PAL APC

1. Receive a Philips pattern.
2. Connect a short jumper between **TPC76** and earth.
3. Connect an oscilloscope to **TPC15**.

1. Adjust APC trimmer **(C637)** to obtain the waveform at **TPC15** as shown in Fig.10.
2. Remove the earth link and confirm the bars are stationery.

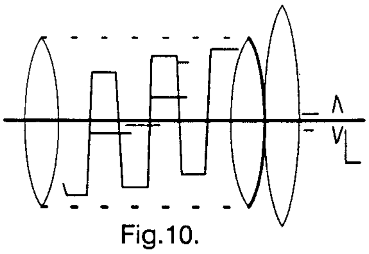


Fig.10.

SUB COLOUR

1. Receive a PAL colour bar pattern.
2. Set controls to:

Brightness	minimum
Contrast	maximum
Sub colour	centre
Colour	centre
Sharpness	minimum

3. Connect an oscilloscope to **TPC15 (TPE15)**.

1. Connect a short jumper between **TPE6** and earth.
2. Adjust the sub colour **(R606)** for 1.6Vp−p +/− 0.1V at **TPC15 (TPE15)** as shown in Fig.11.
3. Remove the earth jumper wire.

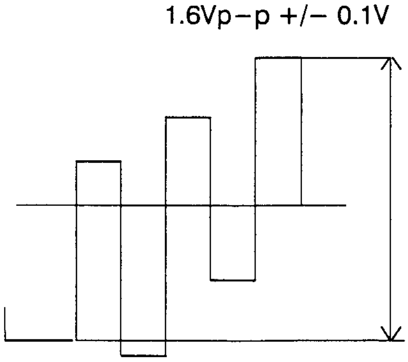


Fig.11.

TEXT CONTRAST

1. Receive a teletext signal.
2. Connect an oscilloscope to **H1 pin 6**.

NOTE:

If the H−board is disconnected from the E−board a 10KΩ resistor has to be connected between H1 pin 6 and earth.

1. Adjust **R3514** to obtain the waveform as shown in Fig.12.

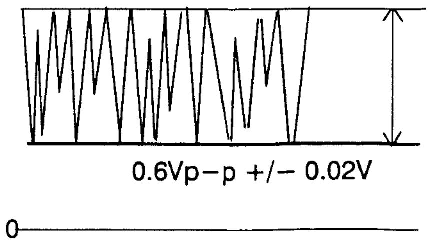
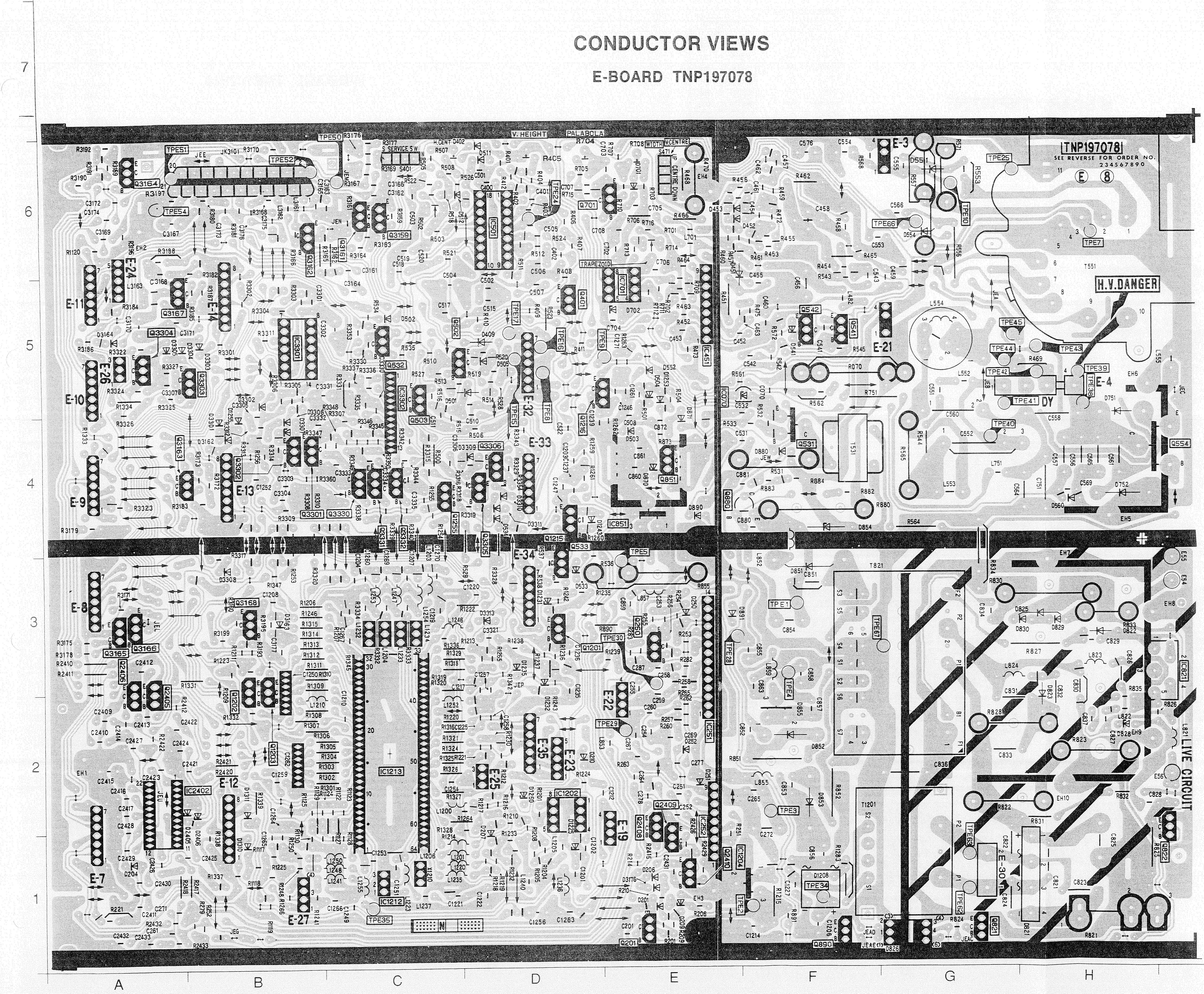


Fig.12.

CONDUCTOR VIEWS

E-BOARD TNP197078


TNP197078
SEE REVERSE FOR ORDER NO.
234567890
E 8
H.V.DANGER
LIVE CIRCUIT
V. HEIGHT
PALABOLA
WIDTH
V.CENTRE
TRAPEZOID
H.CENT
S SERVICE SW
DY
IC3301
IC3302
IC501
IC701
IC451
IC070
IC851
IC1213
IC1202
IC1212
IC1204
IC2402
IC251
IC821
A
B
C
D
E
F
G
H
I
1
2
3
4
5
6
7

PARTS LOCATION

E-BOARD	
IC	
IC2402	A2
IC3301	B5
IC1212	C1
IC1213	C2
IC3302	C5
IC1202	D2
IC501	D6
IC251	E3
IC701	E5
IC451	E5
IC1204	F1
IC070	F5
IC821	I 3
Transistor	
Q2405	A3
Q2406	A3
Q3304	A5
Q3165	A3
Q3166	A3
Q8561	A6
Q3164	A6
Q3168	B3
Q1202	B3
Q1203	B3
Q3301	B4
Q3302	B4
Q3163	B4
Q250	B4
Q3167	B5
Q3303	B5
Q3162	B6
Q3167	B6
Q3330	C4
Q3331	C4
Q1255	C4
Q3330	C4
Q3331	C4
Q3332	C4
Q1255	C4
Q503	C5
Q532	C5
Q532	C5
Q503	C5
Q3159	C6
Q3161	C6

E-BOARD	
Transistor	
Q1201	D3
Q553	D3
Q1255	D4
Q533	D4
Q1215	D4
Q3305	D4
Q3306	D4
Q401	D5
Q502	D5
Q2401	E1
Q201	E1
Q2408	E2
Q2409	E2
Q205	E3
Q851	E4
Q1216	E5
Q701	E6
Q890	F1
Q890	F1
Q880	F4
Q531	F4
Q531	F5
Q541	F5
Q542	F5
Q821	G1
Q554	H4
Q822	I 2
Q554	I4

E-BOARD	
Diode	
D204	A1
D1310	B2
D1311	B3
D3163	B3
D3308	B3
D3162	B4
D1255	B4
D3307	B4
D3302	B5
D3303	B5
D3304	B5
D3305	B5
D3306	B5
D1255	B5
D502	C5
D502	C5
D207	D2
D210	D2
D1208	D2
D1235	D3
D3313	D3
D1232	D3
D1231	D3
D1243	D4
D3310	D4
D534	D4
D3311	D4
D501	D5
D505	D5
D409	D5
D402	D6
D201	E1
D206	E1
D3176	E1
D250	E3
D503	E4
D890	E4
D871	E5
D1253	E5
D552	E5
D702	E5
D701	E6
D852	F2
D853	F2
D855	F2
D851	F3
D891	F3
D880	F4
D854	F4
D451	F6
D826	G1
D551	G6
D554	G6
D821	H1
D822	H3
D823	H3
D825	H3
D752	H4
D560	H4
D751	H5

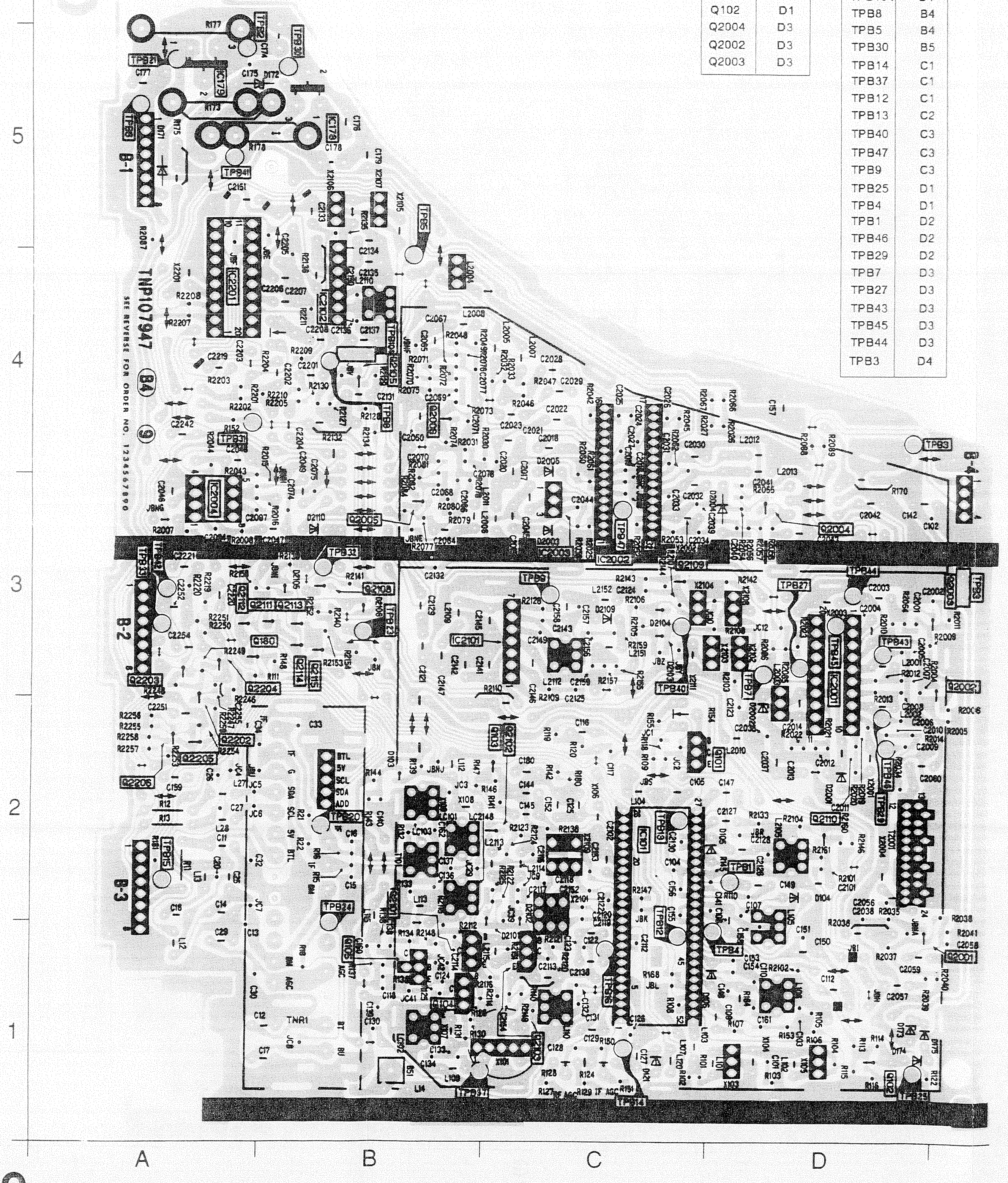
E-BOARD	
Diode	
D2405	B2
D2406	B2
D3307	B4
D3301	B5
D504	D4
D409	D5
D502	C5
D1225	D1
D1250	D2
D533	D3
D1232	D3
D3309	D4
D512	D6
D511	D7
D209	E1
D870	E4
D541	F5
D828	H2
Test Points	
TPE54	A6
TPE51	B6
TPE35	C1
TPE52	C6
TPE50	C6
TPE8	D5
TPE15	D5
TPE16	D5
TPE17	D5
TPE24	D6
TPE29	E2
TPE30	E3
TPE5	E5
TPE9	E9
TPE34	F1
TPE2	F1
TPE3	F2
TPE4	F3
TPE28	F3
TPE1	F3
TPE62	G1
TPE63	G1
TPE67	G3
TPE40	G4
TPE41	G5
TPE44	G5
TPE45	G5
TPE66	G6
TPE10	G6
TPE25	G6
TPE38	H5
TPE39	H5
TPE42	H5
TPE43	H5

PARTS LOCATION

B-BOARD	
IC	
IC2004	A3
IC179	A5
IC2102	B4
IC178	B5
ICIOI	C2
IC2002	C3
IC2101	C3
IC2001	D3
Transistor	
Q2202	A2
Q2204	A3
Q2203	A3
Q105	B1
Q104	B1
Q2101	B1
Q180	B3
Q2105	B4
Q2006	B4
Q101	C2
Q102	D1
Q2004	D3
Q2002	D3
Q2003	D3

B-BOARD	
Diode	
D2003	C3
D175	D1
D174	D1
D173	D1
D2001	D2
D2004	D3
Test Points	
TPB15	A2
TPB33	A3
TPB31	A4
TPB2	A5
TPB6	A5
TPB21	A5
TPB41	A5
TPB24	B1
TPB20	B2
TPB23	B3
TPB32	B3
TPB104	B4
TPB8	B4
TPB5	B4
TPB30	B5
TPB14	C1
TPB37	C1
TPB12	C1
TPB13	C2
TPB40	C3
TPB47	C3
TPB9	C3
TPB25	D1
TPB4	D1
TPB1	D2
TPB46	D2
TPB29	D2
TPB7	D3
TPB27	D3
TPB43	D3
TPB45	D3
TPB44	D3
TPB3	D4

B BOARD TNP107947

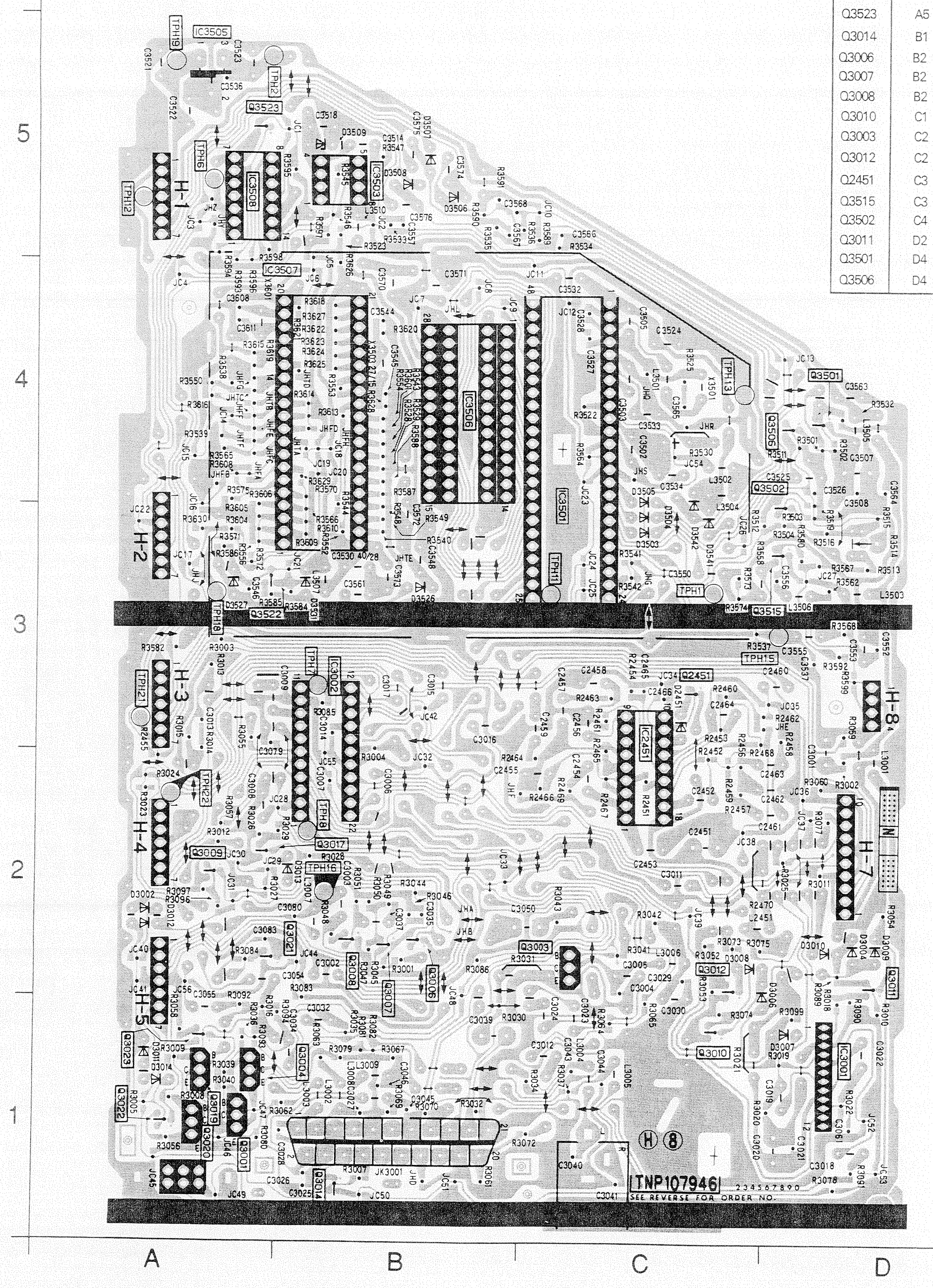


H-BOARD TNP107946

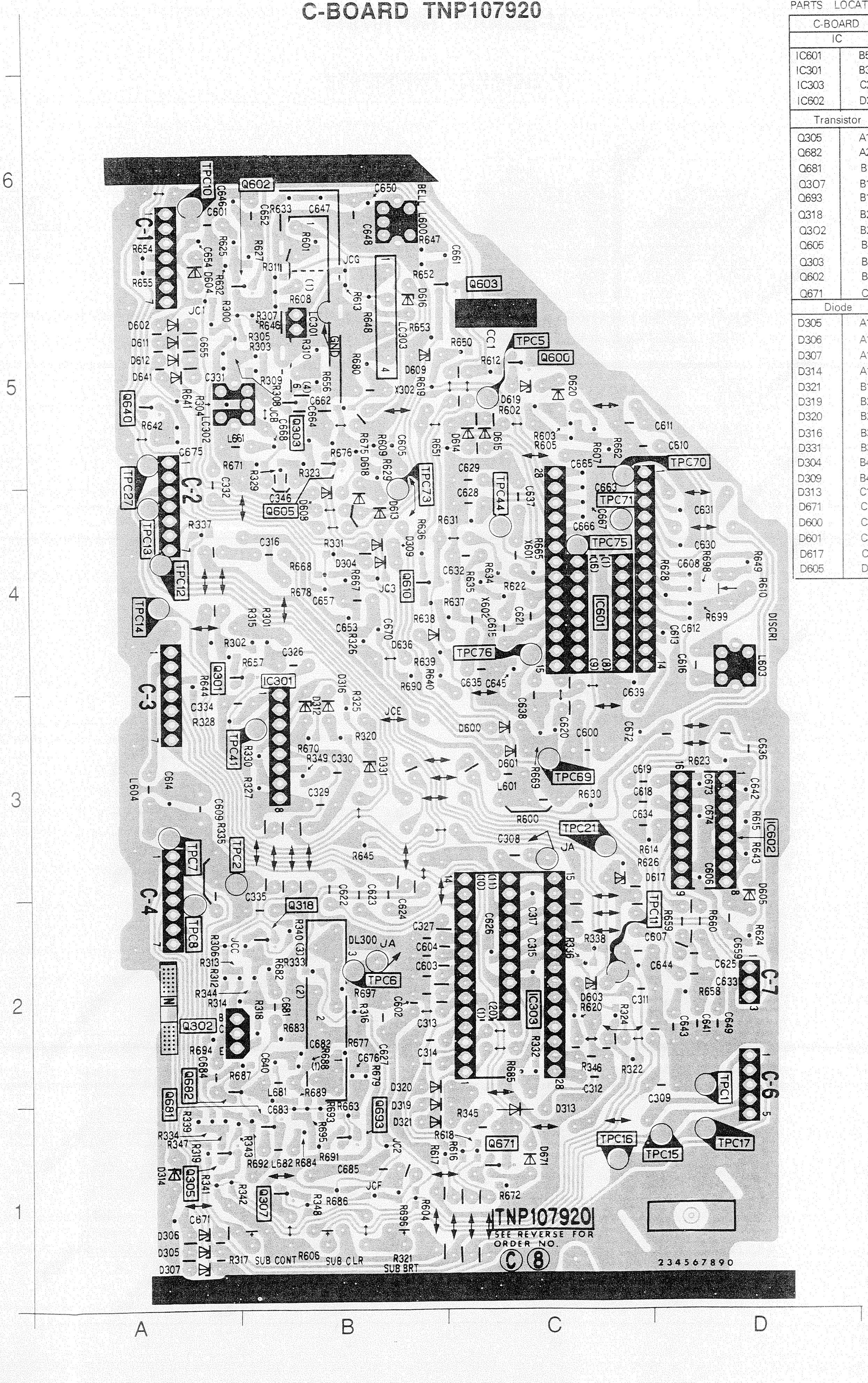
PARTS LOCATION

H-BOARD	
IC	
IC3505	A5
IC3508	A5
IC3002	B3
IC3507	B4
IC3503	B5
IC2451	C2
IC3501	C4
IC3001	D1
Transistor	
Q3019	A1
Q3020	A1
Q3022	A1
Q3023	A1
Q3001	A1
Q3004	A1
Q3009	A2
Q3017	A2
Q3522	A3
Q3523	A5
Q3014	B1
Q3006	B2
Q3007	B2
Q3008	B2
Q3010	C1
Q3003	C2
Q3012	C2
Q2451	C3
Q3515	C3
Q3502	C4
Q3011	D2
Q3501	D4
Q3506	D4

H-BOARD	
Diode	
D3011	A1
D3014	A1
D3002	A2
D3012	A2
D3527	A3
D3531	B3
D3508	B3
D3526	B3
D3513	B3
D3509	B5
D3507	B5
D3506	B5
D3006	C2
D2451	C3
D3503	C3
D3504	C3
D3505	C3
D3541	C4
D3542	C4
D3007	D1
D3008	D2
D3004	D2
D3009	D2
D3010	D2
Test Points	
TPH6	A5
TPH12	A5
TPH19	A5
TPH18	A3
TPH21	A3
TPH22	A2
TPH2	B5
TPH7	B3
TPH8	B2
TPH16	B2
TPH1	C3
TPH11	C3
TPH13	C4
TPH15	D3



C-BOARD TNP107920


6
5
4
3
2
1
A
B
C
D
C-1
C-2
C-3
C-4
C-6
C-7
IC601
IC301
IC303
IC602
Q602
Q603
Q600
Q605
Q303
Q610
Q640
Q301
Q318
Q302
Q682
Q681
Q693
Q671
Q305
Q307
TPC10
TPC5
TPC27
TPC13
TPC12
TPC14
TPC73
TPC44
TPC70
TPC71
TPC75
TPC76
TPC41
TPC69
TPC21
TPC2
TPC7
TPC8
TPC6
TPC11
TPC1
TPC16
TPC15
TPC17
BELL
DISCRI
SUB CONT
SUB CLR
SUB BRT
TNP107920
SEE REVERSE FOR ORDER NO.
C 8
234567890

PARTS LOCATION

C-BOARD	
IC	
IC601	B5
IC301	B3
IC303	C2
IC602	D3
Transistor	
Q305	A1
Q682	A2
Q681	B1
Q307	B1
Q693	B1
Q318	B2
Q302	B2
Q605	B4
Q303	B5
Q602	B6
Q671	C1
Diode	
D305	A1
D306	A1
D307	A1
D314	A1
D321	B1
D319	B2
D320	B2
D316	B3
D331	B3
D304	B4
D309	B4
D313	C1
D671	C1
D600	C3
D601	C3
D617	C3
D605	D2

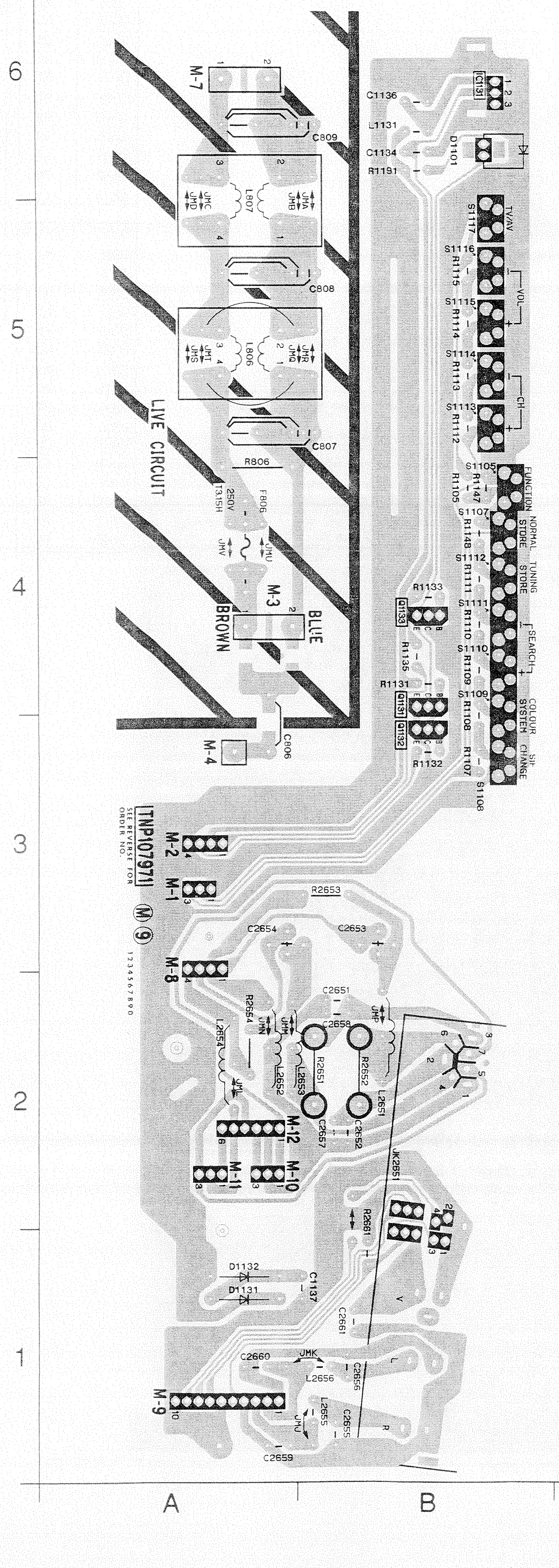
C-BOARD	
Test Points	
TPC2	A3
TPC6	A2
TPC8	A2
TPC7	A3
TPC10	A6
TPC14	A4
TPC13	A4
TPC27	A5
TPC41	B3
TPC73	B4
TPC5	C5
TPC16	C1
TPC21	C3
TPC44	C4
TPC69	C3
TPC70	C5
TPC75	C4
TPC76	C4
TPC1	D2
TPC15	D1
TPC17	D1

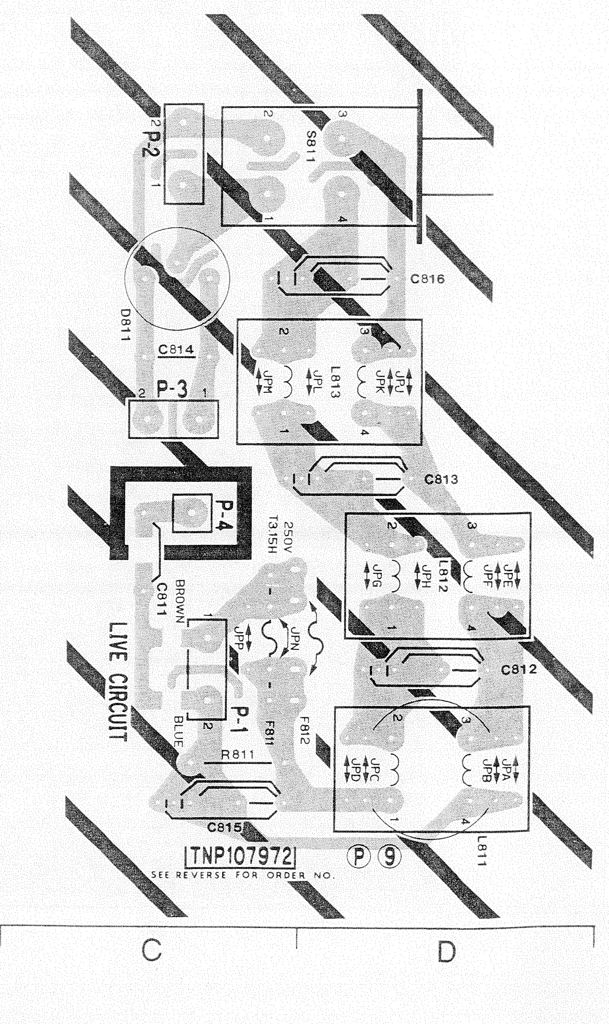
M-BOARD TNP107971

P-BOARD TNP107972

PARTS	LOCATION
M-BOARD	
Transistor	
Q1132	B3
Q1131	B4
Q1133	B4
Diodes	
D1131	A1
D1132	A1

PARTS	LOCATION
P-BOARD	
Diodes	
D811	C3


6
5
4
3
2
1
A
B
M-7
C809
L807
C808
L806
LIVE CIRCUIT
C807
R806
F806
T3.15H 250V
M-3
BLUE
BROWN
M-4
C806
IC1131
C1136
L1131
C1134
R1191
D1101
TV/AV
S1117
S1116
R1115
VOL
S1115
R1114
S1114
R1113
CH
S1113
R1112
FUNCTION
S1105
R1147
R1105
NORMAL STORE
S1107
R1148
TUNING STORE
S1112
R1111
SEARCH
S1111
R1110
S1110
R1109
COLOUR SYSTEM
S1109
R1108
SP CHANGE
R1107
S1106
R1133
Q1133
R1135
R1131
Q1131
Q1132
R1132
TNP107971
SEE REVERSE FOR ORDER NO.
M 9
M-2
M-1
M-8
R2653
C2654
C2653
C2651
C2658
R2654
L2654
L2653
L2652
R2651
R2652
L2651
C2657
C2652
M-12
M-11
M-10
JK2651
R2661
D1132
D1131
C1137
C2661
C2660
L2656
C2656
L2655
C2655
C2659
M-9


C
D
P-2
S811
C816
D811
C814
P-3
L813
C813
P-4
T3.15H 250V
L812
C811
BROWN
LIVE CIRCUIT
P-1
BLUE
F811
F812
C812
R811
C815
L811
TNP107972
P 9
SEE REVERSE FOR ORDER NO.

SCHEMATIC DIAGRAM FOR MODELS
TX-28/25X2E
(ALPHA-4 CHASSIS)

IMPORTANT SAFETY NOTICE

Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Notes

1. RESISTOR
All resistors are carbon ¼W resistor, unless marked.
Unit of resistance is OHM (Ω) (K=1,000, M=1,000,000).

○ : Nonflammable
◎ : Metal Film
☒ : Metal Oxide
⊘ : Fuse
△ : Solid
□ : Wire Wound

2. CAPACITOR
All capacitors are ceramic 50V capacitors, unless marked as follows:
Unit of capacitance is μF, unless otherwise stated.

⊘ : Temprature Compensation
☒ : Polypropylene
±⫴− : Electrolytic
Ⓜ : Polyester
Ⓣ : Dipped Tantalum
NP ⫴ : Bipolar
ⓜ : Metallised Polyester
Ⓩ : Z−Type

3. COIL
Unit of inductance is μH, unless otherwise stated.

4. TEST POINT

○ : Test Point position
③ : Waveform Test Point position

5. EARTH SYMBOL

⏚ : Chassis Earth (Cold)
⏚ : Line Earth (Hot)

6. VOLTAGE MEASUREMENT
Voltage is measured by a DC voltmeter.Measurement conditions are as follows:

Power source	AC 220−240V, 50Hz
Receiving Signal	Colour Bar signal (RF)
All customer controls	Maximum position

7.
➡ : Indicates the Video signal path
⇨ : Indicates the Audio signal path
➨ : Indicates the Vertical/Horizontal signal path

8. This schematic diagram is the latest at the time of printing and is subject to change without notice.

Remarks

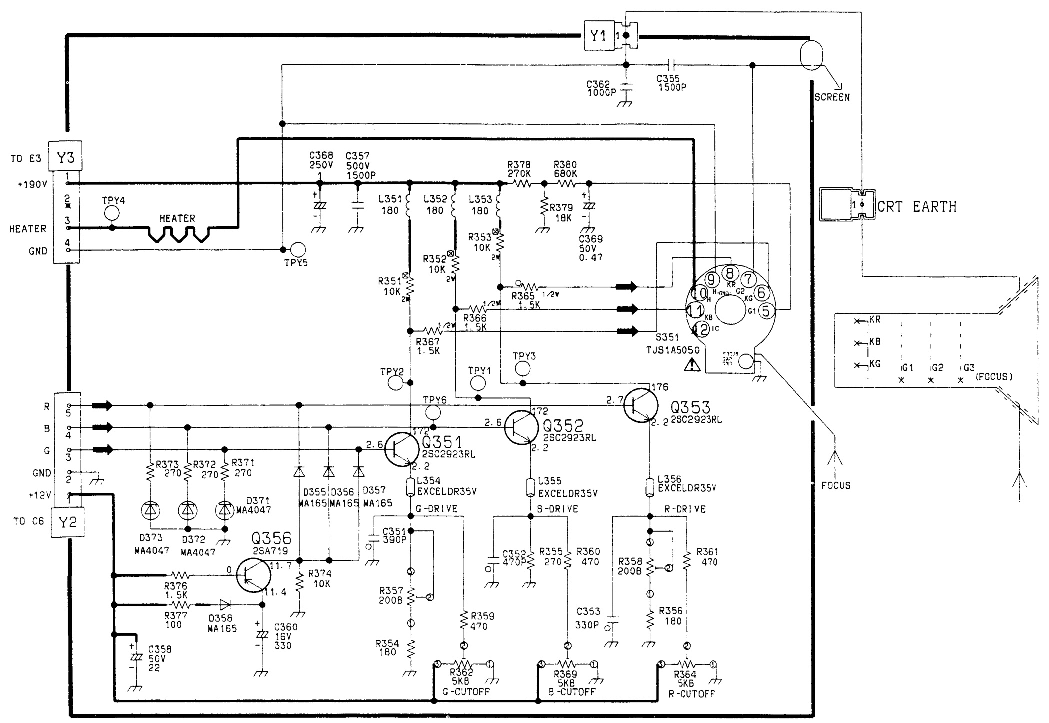
1. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection. The circuit is defined by HOT and COLD indications in the schematic diagram. All circuits, except the Power Circuit, are COLD.

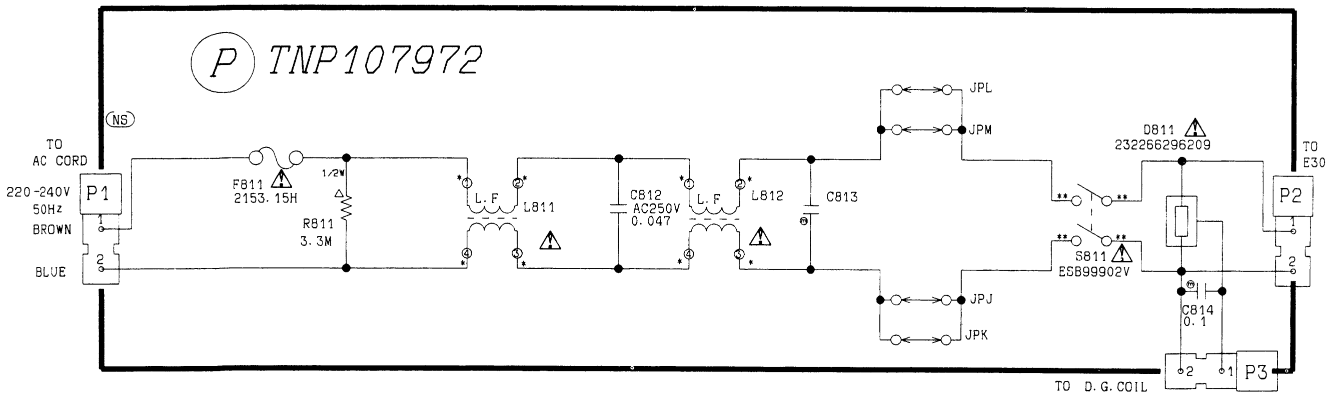
Precautions

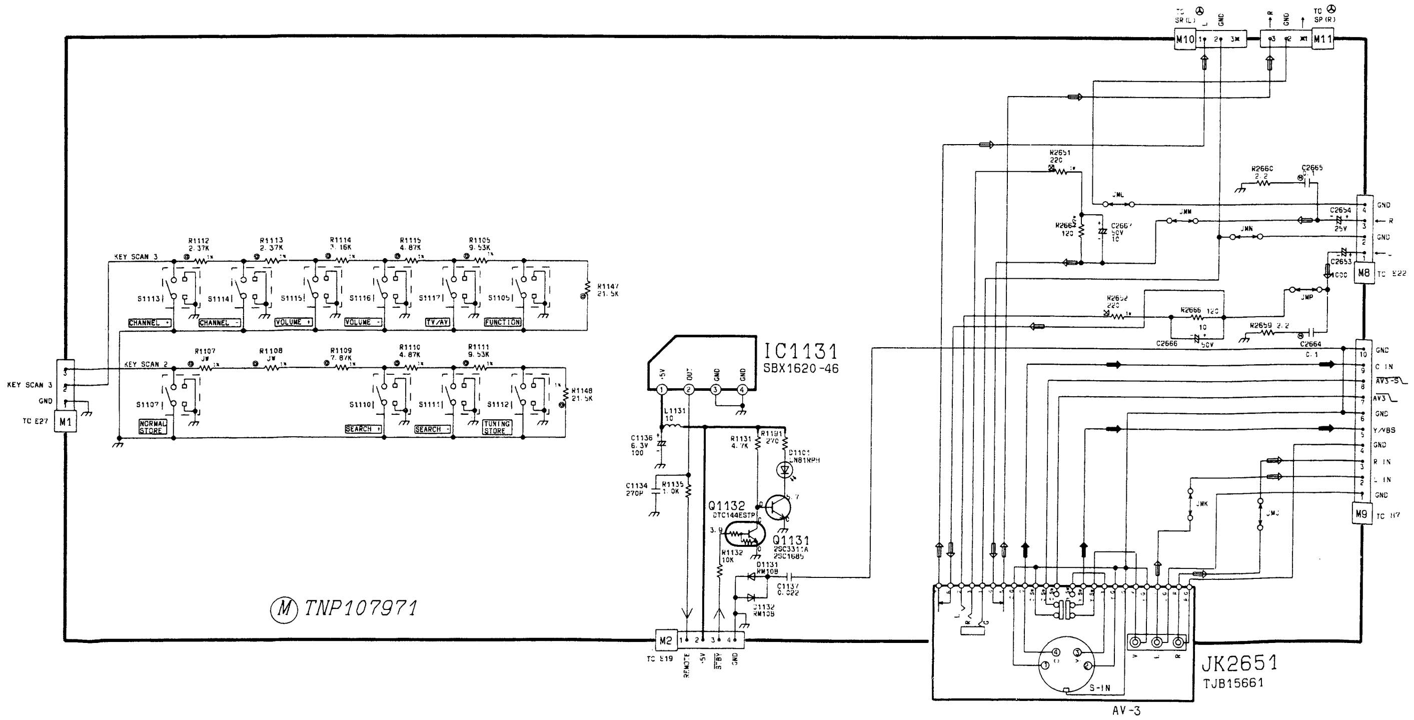
a. Do not touch the hot part, or the hot and cold parts at the same time, as you are liable to a shock hazard.
b. Do not short−circuit the hot and cold circuits as electrical components may be damaged.
c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously, as this may cause fuse failure. Connect the earth of the instruments to the earth connection of the circuit being measured.
d. Make sure to disconnect the power plug before removing the chassis.

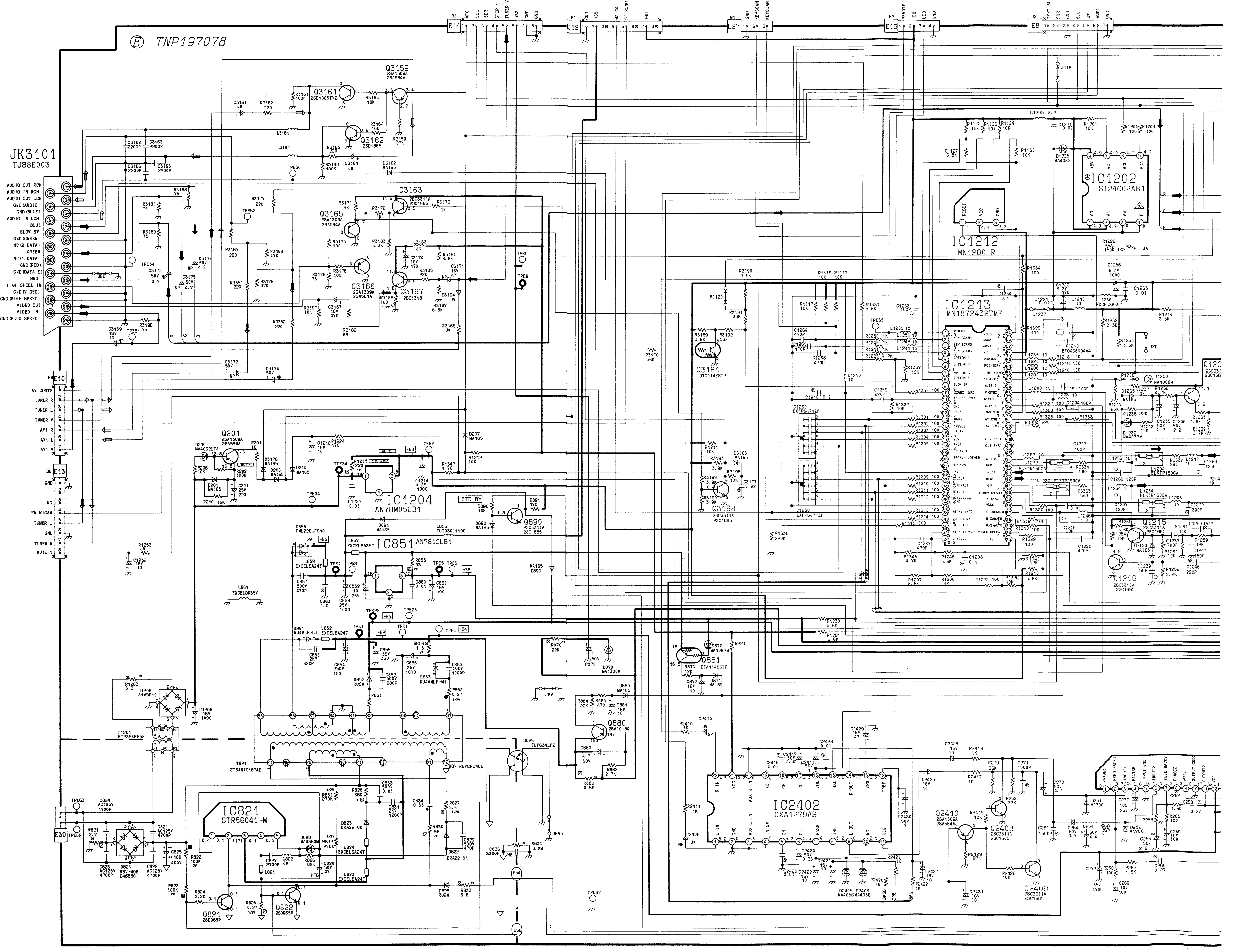
2. The following resistors are fusible safety components, and are rated at the following values :

Ref:	Part number	Current rating
R451	**TSF19801**	**800mA**

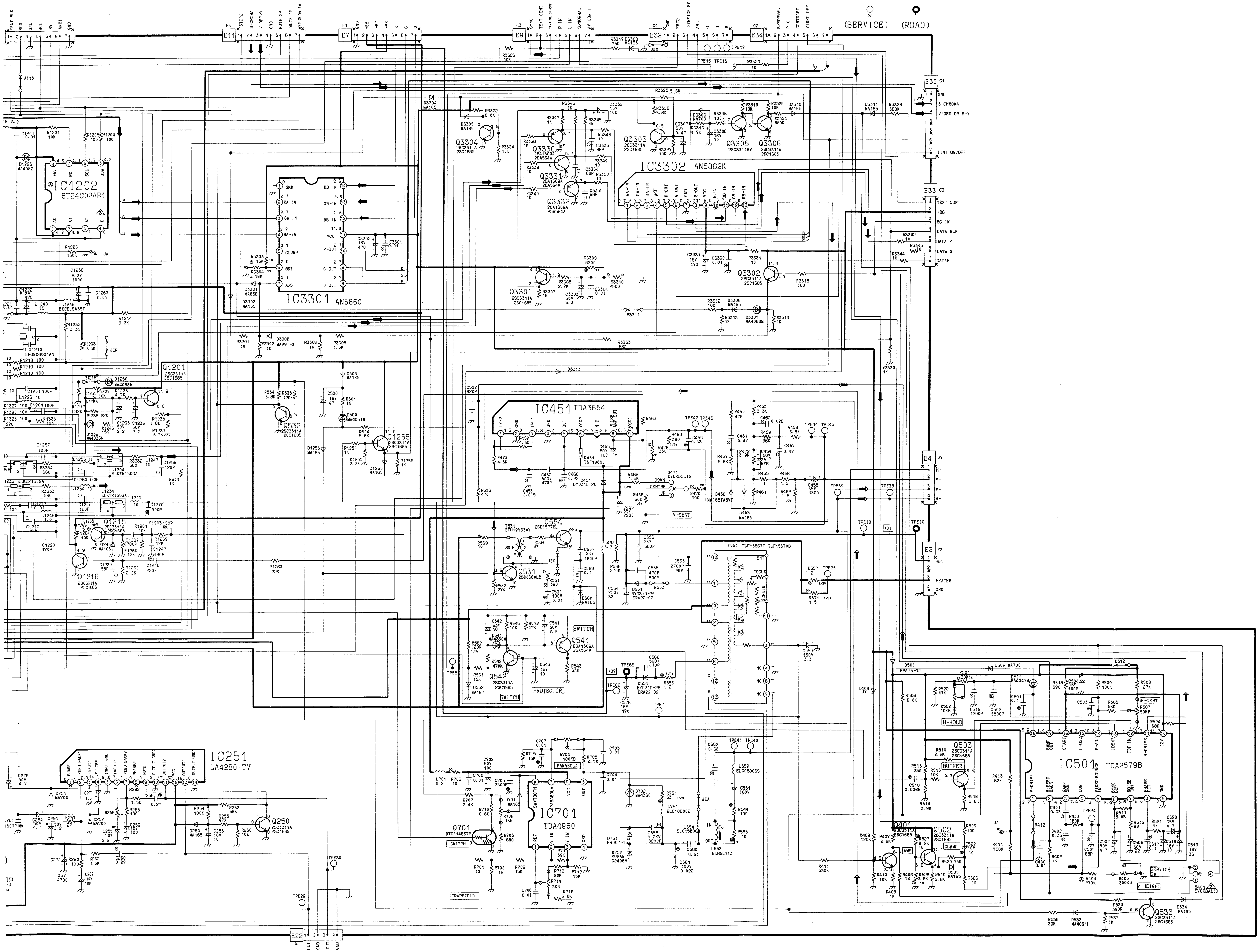

Y1
C362 1000P
C355 1500P
SCREEN
TO E3
Y3
+190V
HEATER
GND
TPY4
TPY5
C368 250V
C357 500V 1500P
L351 180
L352 180
L353 180
R378 270K
R380 680K
R379 18K
C369 50V 0.47
CRT EARTH
R351 10K
R352 10K
R353 10K
R365 1.5K
R366 1.5K
R367 1.5K
S351 TJS1A5050
TPY1
TPY2
TPY3
TPY6
KR
KB
KG
G1
G2
G3
(FOCUS)
FOCUS
Q351 2SC2923RL
Q352 2SC2923RL
Q353 2SC2923RL
R
B
G
GND
+12V
TO C6
Y2
R373 270
R372 270
R371 270
D371 MA4047
D372 MA4047
D373 MA4047
D355 MA165
D356 MA165
D357 MA165
L354 EXCELDR35V
L355 EXCELDR35V
L356 EXCELDR35V
G-DRIVE
B-DRIVE
R-DRIVE
Q356 2SA719
C351 390P
C352 470P
R355 270
R360 470
R358 200B
R361 470
R374 10K
R376 1.5K
R377 100
D358 MA165
C360 16V 330
C358 50V 22
R357 200B
R359 470
R354 180
C353 330P
R356 180
R362 5KB G-CUTOFF
R369 5KB B-CUTOFF
R364 5KB R-CUTOFF

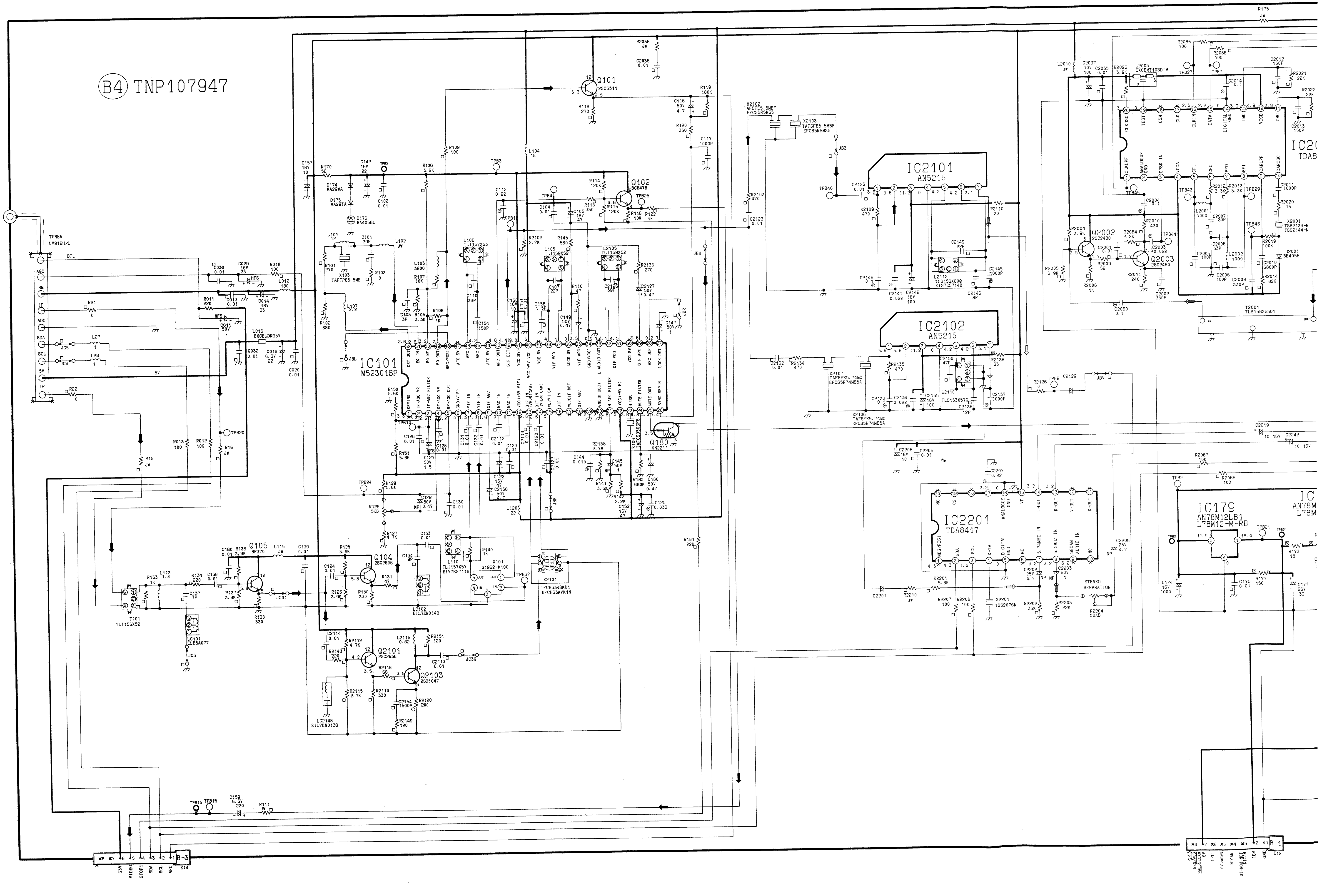

P TNP107972
NS
TO AC CORD
220-240V 50Hz
P1
BROWN
BLUE
F811 2153.15H
1/2W
R811 3.3M
L.F
L811
C812 AC250V 0.047
L.F
L812
C813
JPL
JPM
JPJ
JPK
D811 232266296209
S811 ESB99902V
C814 0.1
TO E30
P2
P3
TO D.G.COIL

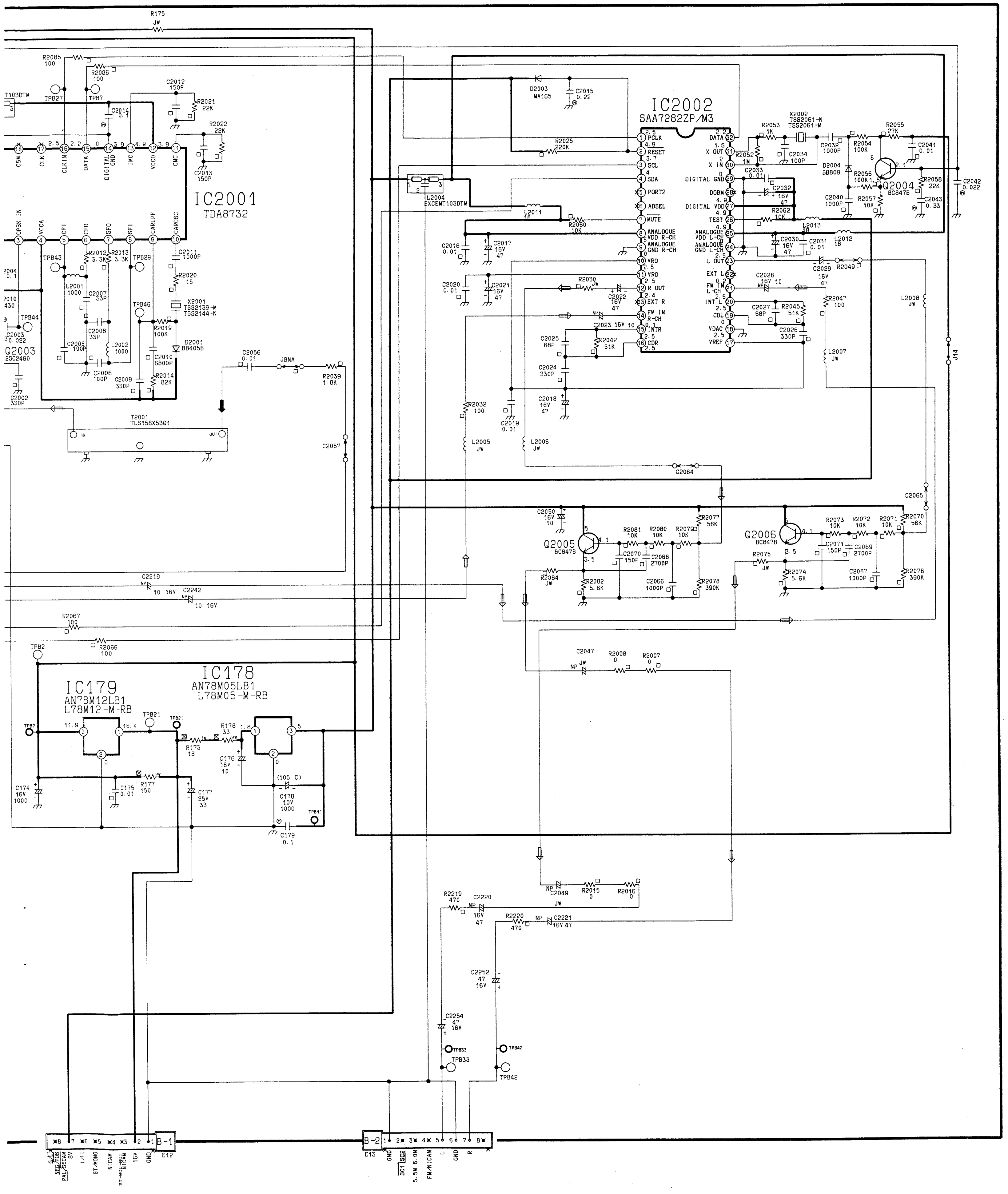

KEY SCAN 3
R1112 2.37K
R1113 2.37K
R1114 3.16K
R1115 4.87K
R1105 9.53K
R1147 21.5K
S1113
S1114
S1115
S1116
S1117
S1105
CHANNEL +
CHANNEL -
VOLUME +
VOLUME -
TV/AV
FUNCTION
KEY SCAN 2
R1107
R1108
R1109 7.87K
R1110 4.87K
R1111 9.53K
R1148 21.5K
S1107
S1110
S1111
S1112
NORMAL STORE
SEARCH +
SEARCH -
TUNING STORE
KEY SCAN 3
GND
TC E27
M1
IC1131 SBX1620-46
L1131 10
C1136 6.3V 100
C1134 270P
R1135 1.0K
R1131 4.7K
R1101 270
D1101
Q1132
Q1131
R1132 10K
D1131 MA108
C1137 0.022
M TNP107971
M2
TC E19
REMOTE
GND
M10
M11
M8
M9
R2651 220
R2660 2.2
C2665
C2654 25V
C2653
R2663 120
C2667 50V 10
R2662 220
R2666 120
C2666 50V
R2659 2.2
C2664
JML
JMM
JMN
JMP
JMK
JMJ
GND
C IN
AV3-S
AV3
Y/VBS
R IN
L IN
JK2651 TJB15661
S-IN
AV-3



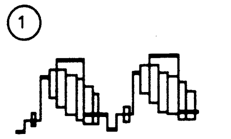
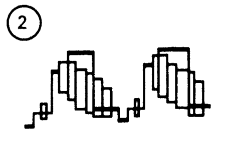
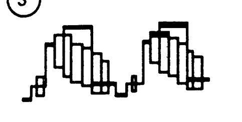
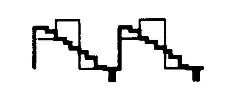
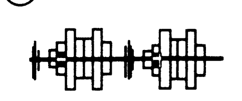
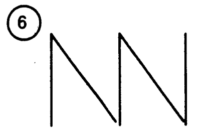
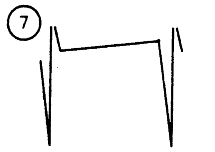
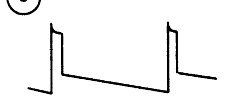
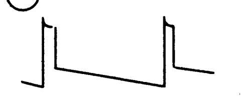
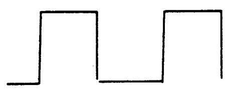
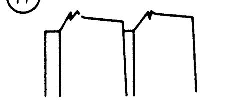
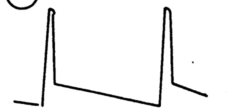
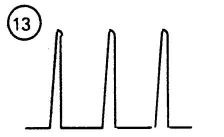
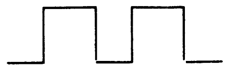
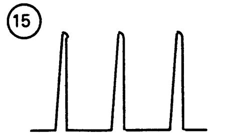
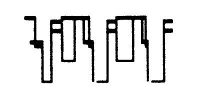
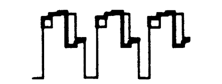
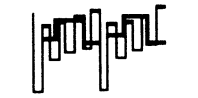
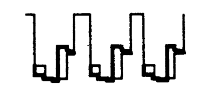
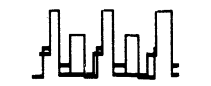
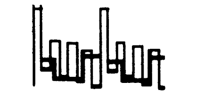
TNP197078
JK3101
TJS8E003
AUDIO OUT RCH
AUDIO IN RCH
AUDIO OUT LCH
GND (AUDIO)
GND (BLUE)
AUDIO IN LCH
BLUE
SLOW SW
GND (GREEN)
NC (2. DATA)
GREEN
NC (1. DATA)
GND (RED)
GND (DATA E)
RED
HIGH SPEED IN
GND (VIDEO)
GND (HIGH SPEED)
VIDEO OUT
VIDEO IN
GND (PLUG SPEED)
E14
AFC
SCL
SDA
STOP 1
TUNER V
+33
GND
E12
+95
M2 C4
ST MONO
+88
E27
GND
KEYSCAN 3
KEYSCAN 2
E19
REMOTE
+B8
LED
GND
E8
TEXT BLK
SDA
GND
SCL
SW
AMBI
GND
Q3159
2SA1309A
2SA564A
Q3161
2SD1865TV2
Q3162
2SD1865
Q3163
2SC3311A
2SC1685
Q3165
2SA1309A
2SA564A
Q3166
2SA1309A
2SA564A
Q3167
2SC1318
Q3164
DTC114ESTP
Q3168
2SC3311A
2SC1685
E10
AV CONT2
TUNER R
TUNER L
TUNER V
AV1 R
AV1 L
AV1 V
E13
GND
NC
FM NICAM
TUNER L
GND
TUNER R
MUTE 1
Q201
2SA1309A
2SA564A
IC1204
AN78M05LB1
Q890
2SC3311A
2SC1685
STD BY
IC851
AN7812LB1
Q851
DTA114ESTP
Q880
2SA1018Q
IC821
STR56041-M
Q821
2SD965R
Q822
2SD965R
T821
ETS49AC187AD
HOT REFERENCE
T1201
ETP35KE65E
D826
TLP634LF2
E30
E54
E56
IC1212
MN1280-R
RESET
VCC
GND
IC1202
ST24C02AB1
IC1213
MN1872432TMF
X1210
EFOGC8004A4
IC2402
CXA1279AS
Q2410
2SA1309A
2SA564A
Q2408
2SC3311A
2SC1685
Q2409
2SC3311A
2SC1685
Q1215
2SC3311A
2SC1685
Q1216
2SC3311A
2SC1685
D1225
MA4082
D1250
MA4068M
D070
MA1300M

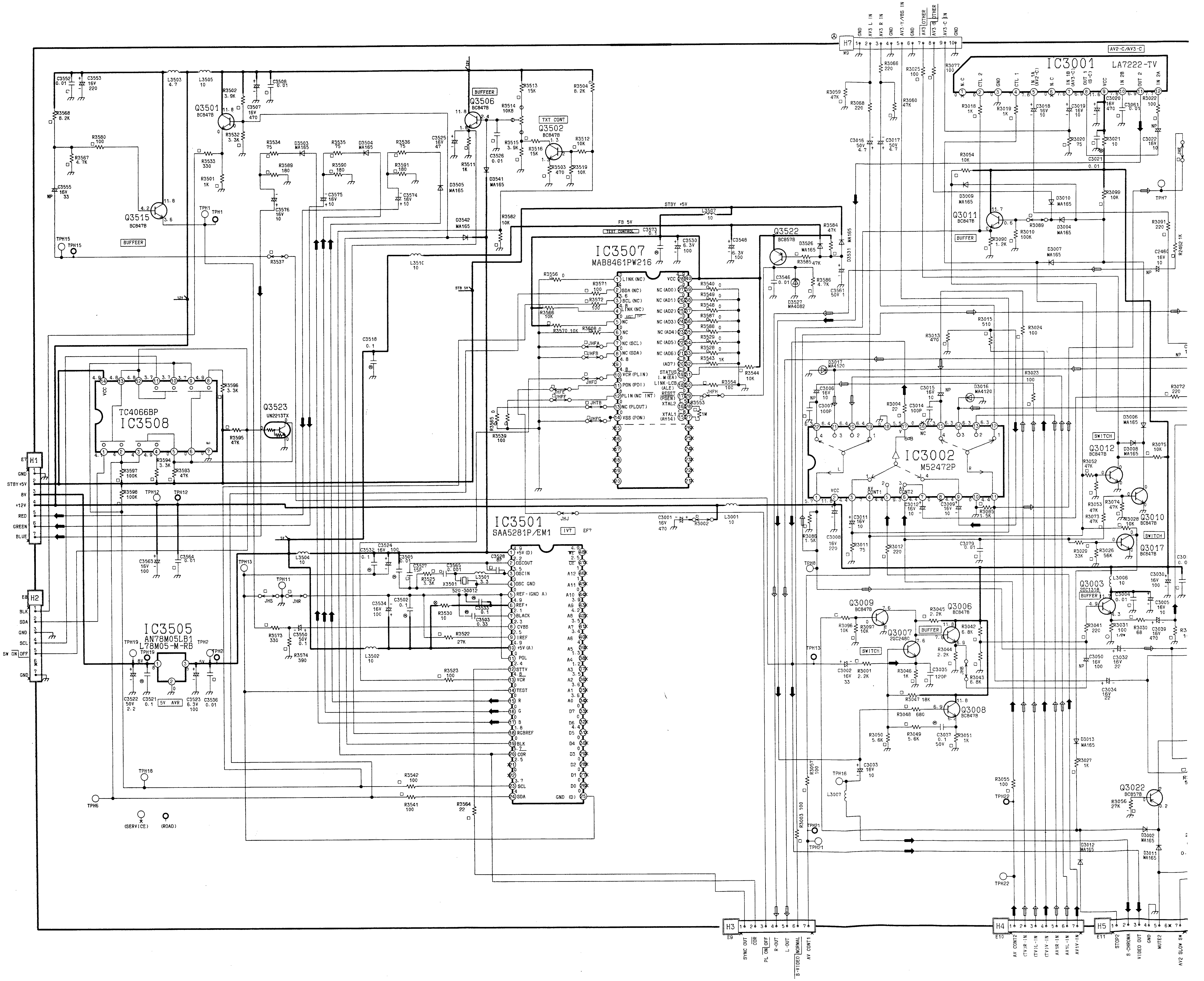

(SERVICE)
(ROAD)
E11
E7
E9
E32
E34
E35
E33
E4
E3
E22
IC1202
ST24C02AB1
IC3301
AN5860
IC3302
AN5862K
IC451
TDA3654
IC501
TDA2579B
IC701
TDA4950
IC251
LA4280-TV
Q3301
Q3302
Q3303
Q3304
Q3305
Q3306
Q3330
Q3331
Q3332
Q1201
Q1215
Q1216
Q1255
Q532
Q531
Q554
Q541
Q542
Q503
Q401
Q502
Q533
Q701
Q250
T531
T551 TLF15567F TLF15570B
SWITCH
PROTECTOR
H-HOLD
BUFFER
AMP
CLAMP
PARABOLA
TRAPEZOID
V-CENT
H-CENT
V-HEIGHT
SERVICE SW
S401 EVQRBAL10
S471 EVQRDBL12
DOWN
CENTRE
UP
S CHROMA
VIDEO OR S-Y
TINT ON/OFF
TEXT CONT
+B6
SC IN
DATA BLK
DATA R
DATA G
DATAB
DY
H-
V-
V+
H+
Y3
+B1
HEATER
GND
EHT
FOCUS
SCREEN
TPE10
TPE8
TPE24
TPE25
TPE29
TPE30
TPE38
TPE39
TPE40
TPE41
TPE42
TPE43
TPE44
TPE45
TPE66
TPE7
L OUT
GND
R OUT
GND


B4 TNP107947
TUNER UV916H/L
BTL
AGC
BM
IF
ADD
SDA
SCL
5V
IC101
M52301SP
Q101
2SC3311
Q102
BC847B
Q104
2SC2636
Q105
BF370
Q180
UN2211
Q2101
2SC2636
Q2103
2SC1047
IC2101
AN5215
IC2102
AN5215
IC2201
TDA8417
IC179
AN78M12LB1
L78M12-M-RB
Q2002
2SC2480
Q2003
2SC2480
X2101
TFCH33SK01
EFCH33MVK1N
X101
G1962-M100
X2102
TAFSFE5.5MBF
EFCS5R5MS5
X2103
TAFSFE5.5MBF
EFCS5R5MS5
X2106
TAFSFE5.74MC
EFCS5R74MS5A
X2107
TAFSFE5.74MC
EFCS5R74MS5A
X2201
TSS2076M
T101
TL1156X52
T2001
TLS158X53Q1
L102
EIL7EN0140
LC2148
EIL7EN0130
LC101
ELB5A077
STEREO SEPARATION
33V
VIDEO
STOP1
SDA
SCL
AFC
B-3
E14
B-1
E12
16V
GND
TPB15
TPB20
TPB24
TPB3
TPB4
TPB9
TPB40

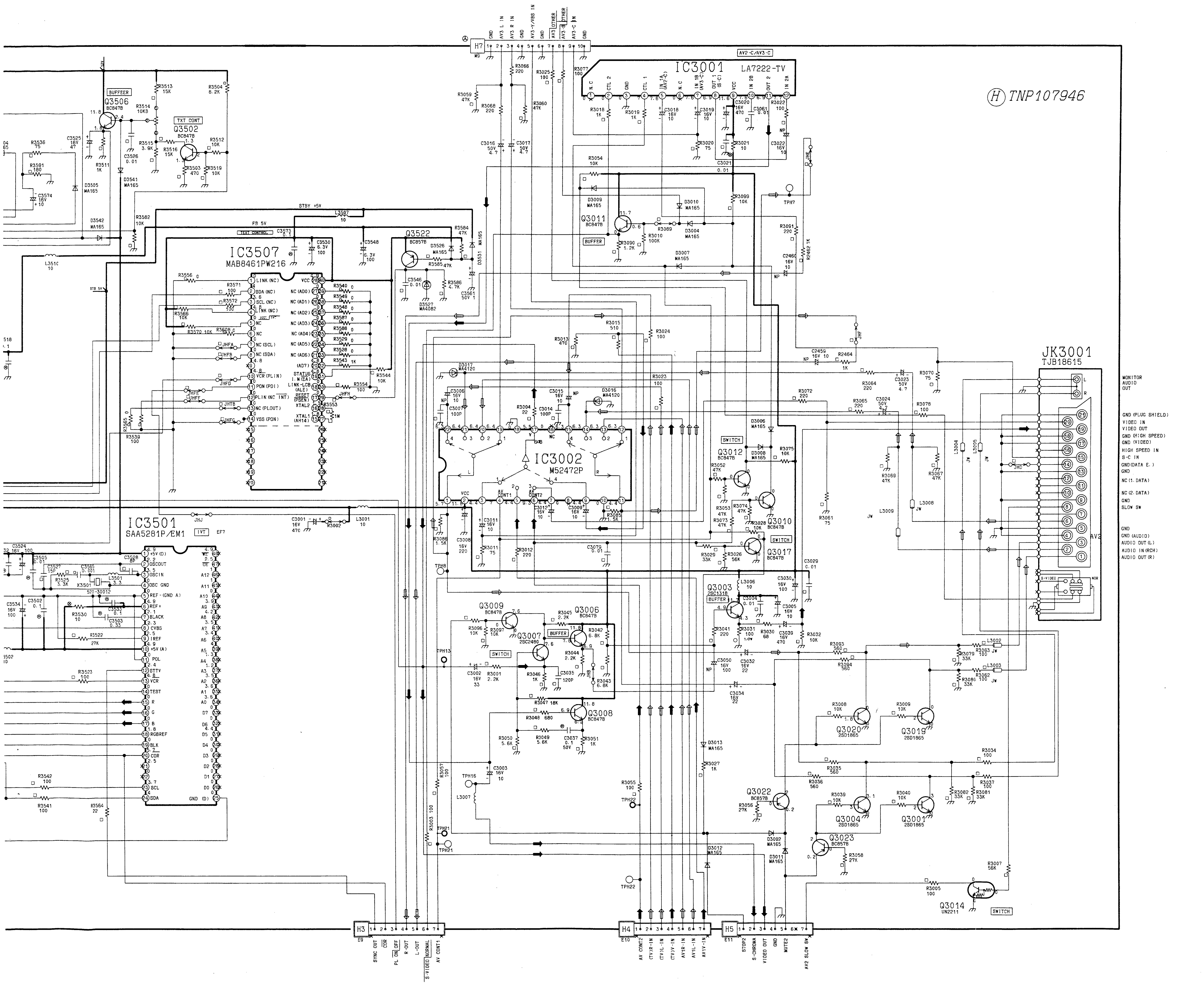

IC2002
SAA7282ZP/M3
IC2001
TDA8732
IC179
AN78M12LB1
L78M12-M-RB
IC178
AN78M05LB1
L78M05-M-RB
Q2003
2SC2480
Q2004
BC847B
Q2005
BC847B
Q2006
BC847B
T2001
TLS158X5301
X2001
TSS2139-M
TSS2144-N
X2002
TSS2061-N
TSS2061-M
L2004
EXCEMT103DTW
D2003
MA165
D2004
BB809
D2001
BB405B
PCLK
RESET
SCL
SDA
PORT2
ADSEL
MUTE
ANALOGUE VDD R-CH
ANALOGUE GND R-CH
VRO
EXT R
FM IN R-CH
INTR
CDR
DATA
X OUT
X IN
DIGITAL GND
DOBM
DIGITAL VDD
TEST
ANALOGUE VDD L-CH
ANALOGUE GND L-CH
L OUT
EXT L
FM IN L-CH
INT L
CDL
VDAC
VREF
B-1
E12
B-2
E13
8V
I/II
ST/MONO
NICAM
16V
GND
SC1
5.5M 6.0M
FM/NICAM
L
R
TP833
TP842
TP82
TP821
TP841

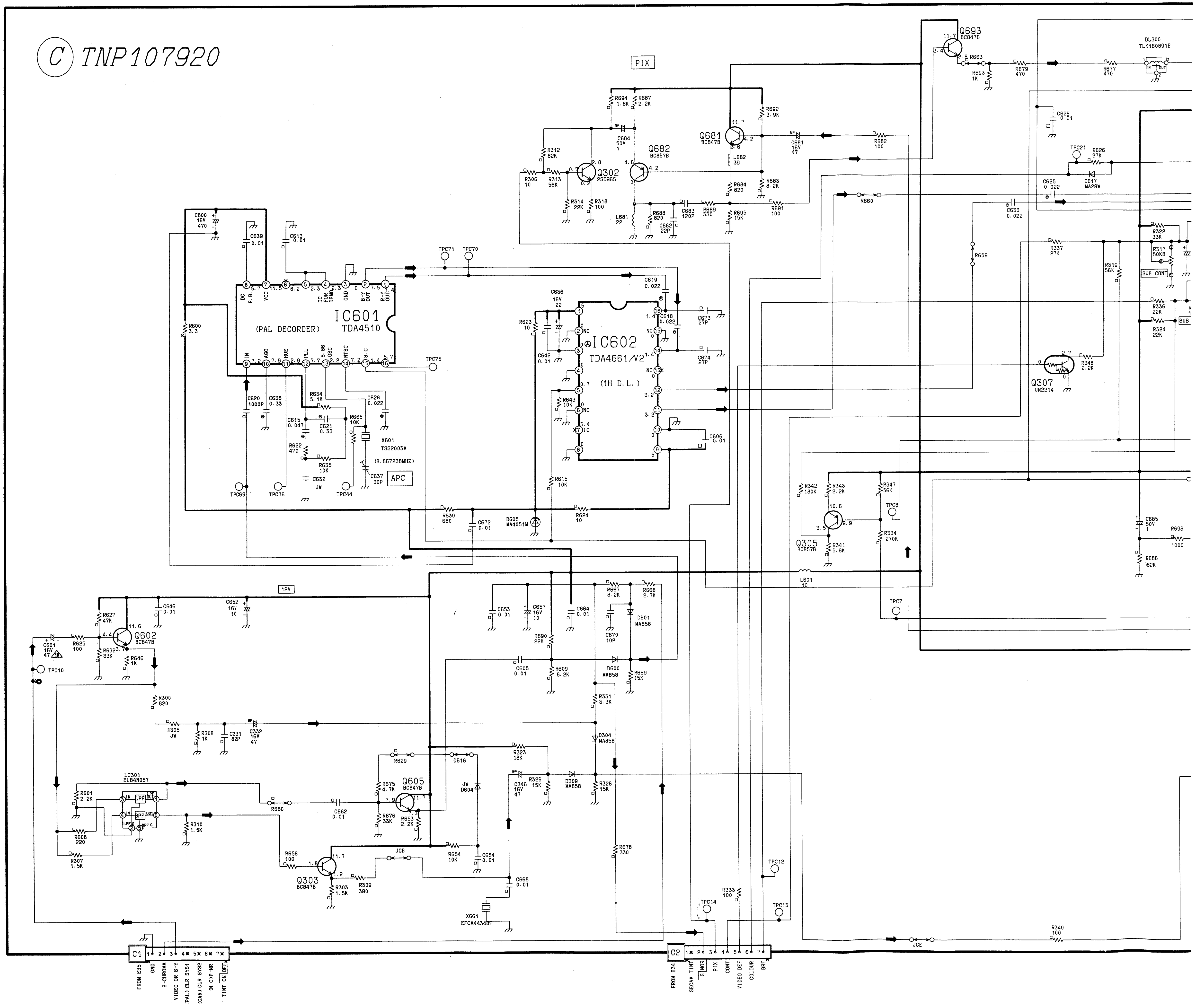
WAVEFORM PATTERN TABLE

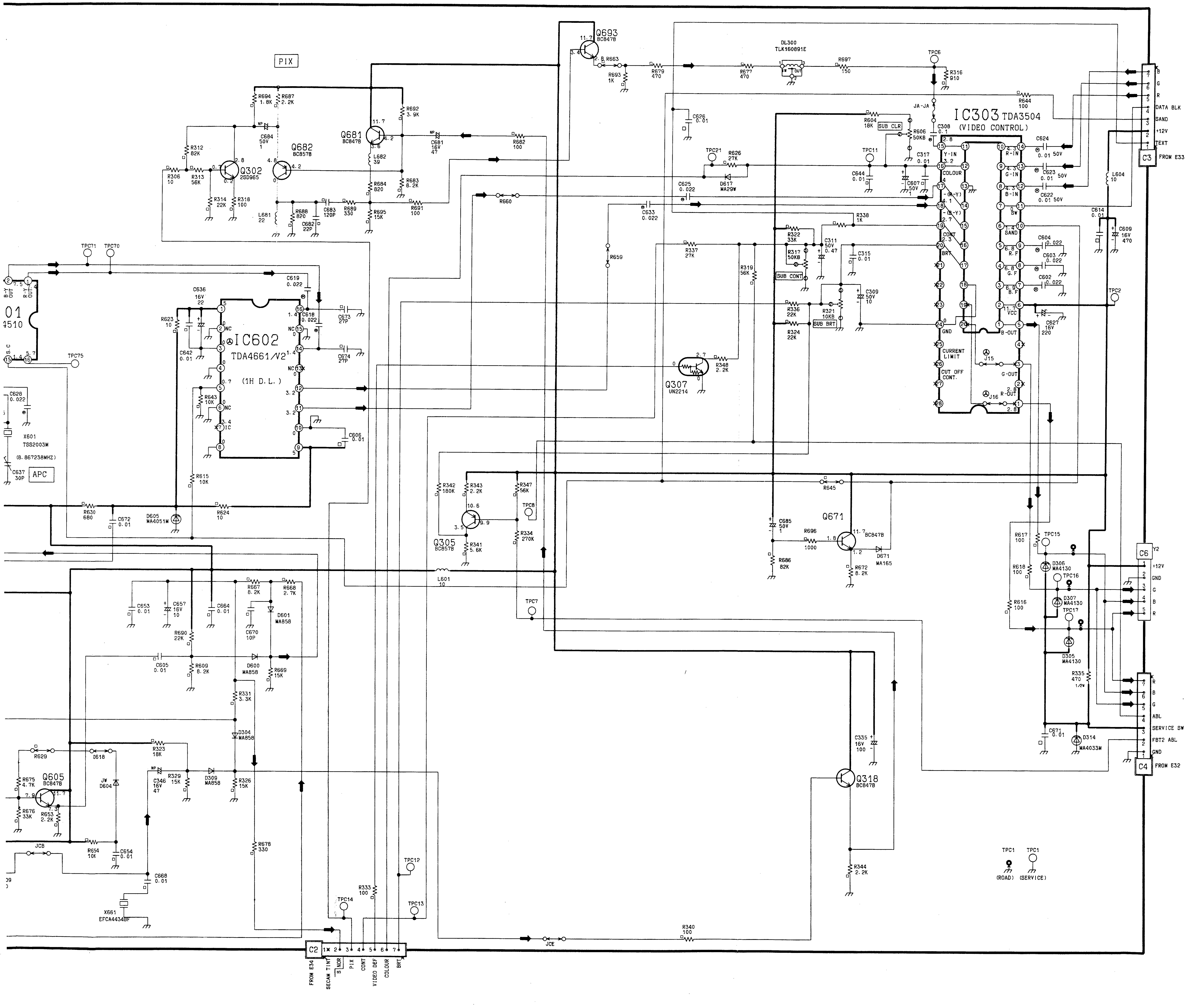
①  3.1Vp-p (20uS)	②  2.8Vp-p (20uS)	③  2.8Vp-p (20uS)
④  0.4Vp-p (20uS)	⑤  1.2Vp-p (20uS)	⑥  3.0Vp-p (20uS)
⑦  3.6Vp-p (5mS)	⑧  22Vp-p (5mS)	⑨  45Vp-p (5mS)
⑩  2Vp-p (20uS)	⑪  15Vp-p (10uS)	⑫  1500Vp-p (10uS)
⑬  100Vp-p (20uS)	⑭  100Vp-p (20uS)	⑮  25.2Vp-p (20uS)
⑯  4.5Vp-p (20uS)	⑰  4.5Vp-p (20uS)	⑱  4.5Vp-p (20uS)
⑲  150Vp-p (20uS)	⑳  150Vp-p (20uS)	㉑  150Vp-p (20uS)



IC3001
LA7222-TV
AV2-C/AV3-C
H7
GND
AV3 L IN
AV3 R IN
GND
AV3-Y/VBS IN
GND
AV3 OTHER
AV3 S OTHER
AV3-C IN
GND
IC3507
MAB8461PW216
TEXT CONTROL
STBY +5V
F8 5V
IC3508
TC4066BP
IC3501
SAA5281P/EM1
IVT
IC3505
AN78M05LB1
L78M05-M-RB
5V AVR
IC3002
M52472P
Q3501
BC847B
Q3506
BC847B
BUFFEER
Q3502
BC847B
TXT CONT
Q3515
BC847B
BUFFEER
Q3522
BC857B
Q3523
UN2213TX
Q3011
BC847B
BUFFER
Q3012
BC847B
SWITCH
Q3010
BC847B
SWITCH
Q3017
BC847B
Q3003
2SC1318
BUFFER
Q3009
BC847B
Q3006
BC847B
BUFFER
Q3007
2SC2480
SWITCH
Q3008
BC847B
Q3022
BC857B
H1
E7
GND
STBY +5V
8V
+12V
RED
GREEN
BLUE
H2
E8
BLK
SDA
GND
SCL
SW ON OFF
GND
TPH1
TPH2
TPH6
TPH7
TPH8
TPH11
TPH12
TPH13
TPH15
TPH16
TPH18
TPH19
TPH21
TPH22
(SERVICE)
(ROAD)
H3
E9
SYNC OUT
CDR
PL ON OFF
R-OUT
L-OUT
S-VIDEO NORMAL
AV CONT1
H4
E10
AV CONT2
(TV)R-IN
(TV)L-IN
(TV)V-IN
AV1R-IN
AV1L-IN
AV1V-IN
H5
E11
STOP2
S-CHROMA
VIDEO OUT
GND
MUTE2
AV2 SLOW S
+5V (D)
OSCOUT
OSCIN
OSC GND
REF-(GND A)
REF+
BLACK
CVBS
IREF
+5V (A)
POL
STTV
VCR
TEST
R
G
B
RGBREF
BLK
COR
SCL
SDA
GND (D)
LINK (NC)
SDA (NC)
SCL (NC)
LINK (NC)
NC
VCR (PLIN)
PON (PDI)
PLIN (NC INT)
NC (PLOUT)
VSS (PON)
VCC
STATUS
LINK-LCB
RESET
XTAL2
XTAL1
X3501
520-30012

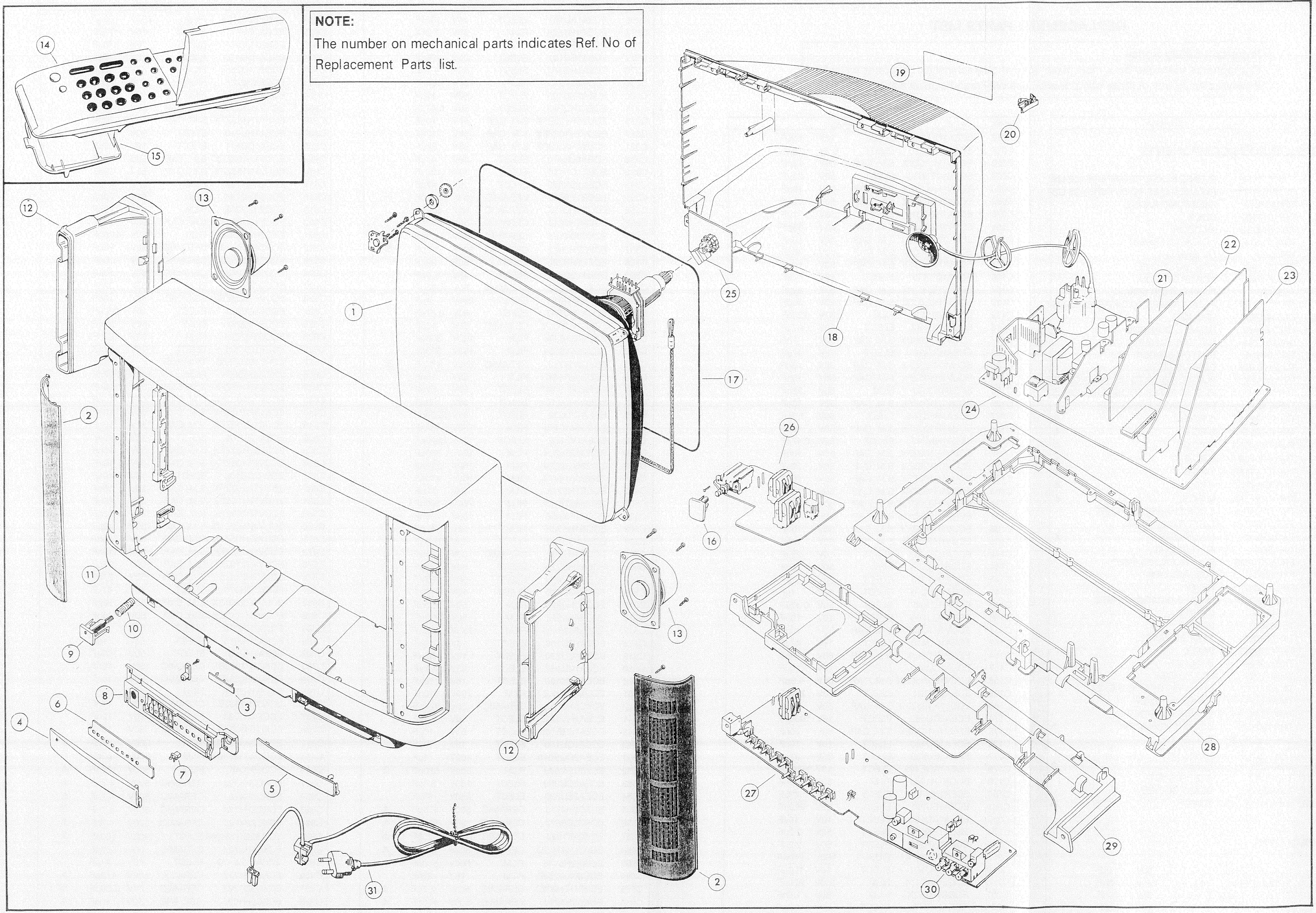

H TNP107946
H7
M9
GND
AV3 L IN
AV3 R IN
GND
AV3-Y/VBS IN
GND
AV3 OTHER
AV3-S OTHER
AV3-C IN
GND
AV2-C/AV3-C
IC3001
LA7222-TV
N.C
CTL 2
GND
CTL 1
IN 1A (AV2-C)
N.C
IN 1B (AV3-C)
OUT 1 (S-C)
VCC
IN 2B
OUT 2
IN 2A
IC3507
MAB8461PW216
LINK (NC)
SDA (NC)
SCL (NC)
LINK (NC)
NC
NC
NC (SCL)
NC (SDA)
VCR (PLIN)
PON (PDI)
PLIN (NC INT)
NC (PLDOUT)
VSS (PON)
VCC
NC (AD0)
NC (AD1)
NC (AD2)
NC (AD3)
NC (AD4)
NC (AD5)
NC (AD6)
(AD7)
STATUS I.M (EA)
LINK-LCB (ALE)
RESET (PSEN)
XTAL2
XTAL1 (AH14)
STBY +5V
FB 5V
TEXT CONTROL
Q3506
BUFFEER
Q3502
TXT CONT
Q3522
IC3002
M52472P
VCC
AV CONT1
AV CONT2
Q3011
BUFFER
Q3012
SWITCH
Q3010
Q3017
Q3003
BUFFER
Q3009
Q3006
Q3007
Q3008
Q3020
Q3019
Q3022
Q3004
Q3001
Q3023
Q3014
UN2211
SWITCH
IC3501
SAA5281P/EM1
IVT
+5V (D)
OSCOUT
OSCIN
OSC GND
REF-(GND A)
REF+
BLACK
CVBS
IREF
+5V (A)
POL
STTV
VCR
TEST
R
G
B
RGBREF
BLK
COR
SCL
SDA
GND (D)
JK3001
TJB18615
MONITOR
AUDIO
OUT
GND (PLUG SHIELD)
VIDEO IN
VIDEO OUT
GND (HIGH SPEED)
GND (VIDEO)
HIGH SPEED IN
S-C IN
GND(DATA E.)
GND
NC (1.DATA)
NC (2.DATA)
GND
SLOW SW
GND
GND (AUDIO)
AUDIO OUT (L)
AUDIO IN (RCH)
AUDIO OUT (R)
AV2
S-VIDEO
NOR
H3
E9
SYNC OUT
COR
PL ON OFF
R-OUT
L-OUT
S-VIDEO NORMAL
AV CONT1
H4
E10
AV CONT2
(TV)R-IN
(TV)L-IN
(TV)V-IN
AV1R-IN
AV1L-IN
AV1V-IN
H5
E11
STOP2
S-CHROMA
VIDEO OUT
GND
MUTE2
AV2 SLOW SW
TPH7
TPH8
TPH13
TPH16
TPH21
TPH22


Ⓒ TNP107920
PIX
IC601
TDA4510
(PAL DECORDER)
IC602
TDA4661/V2
(1H D.L.)
Q693
BC847B
Q681
BC847B
Q682
BC857B
Q302
2SD965
Q602
BC847B
Q605
BC847B
Q303
BC847B
Q305
BC857B
Q307
UN2214
DL300
TLK160891E
LC301
EL84N057
X601
TSS2003M
(8.867238MHZ)
X661
EFCA4434BF
APC
12V
SUB CONT
SUB
L601
10
JCB
JCE
D605
MA4051M
D600
MA858
D601
MA858
D304
MA858
D309
MA858
D617
MA29W
D618
D604
TPC7
TPC8
TPC10
TPC12
TPC13
TPC14
TPC21
TPC44
TPC69
TPC70
TPC71
TPC75
TPC76
C1
FROM E35
GND
S-CHROMA
VIDEO OR S-Y
(PAL) CLR SYS1
(SCAM) CLR SYS2
(N.C)P-NR
TINT ON/OFF
C2
FROM E34
SECAM TINT
S NOR
PIX
CONT
VIDEO DEF
COLOUR
BRT


PIX
Q693 BC847B
R663
R693 1K
R679 470
R677 470
DL300 TLK160891E
R697 150
TPC6
R316 910
JA-JA
R644 100
IC303 TDA3504 (VIDEO CONTROL)
C306 0.1
R604 18K
SUB CLR
R606 50KB
C626 0.01
R694 1.8K
R687 2.2K
R692 3.9K
Q681 BC847B
C684 50V 1
Q682 BC857B
R312 82K
Q302 2SD965
R306 10
R313 56K
R314 22K
R318 100
C681 16V 47
R682 100
L682 39
R684 820
R683 8.2K
L681 22
R688 820
C682 22P
C683 120P
R689 330
R695 15K
R691 100
R660
C625 0.022
C633 0.022
TPC21
R626 27K
D617 MA29W
TPC11
C644 0.01
C317 0.01
C607 50V 1
R338 1K
R322 33K
R317 50KB
C311 50V 0.47
C315 0.01
R337 27K
R319 56K
SUB CONT
R336 22K
R321 10KB
SUB BRT
C309 50V 10
R324 22K
R659
Y-IN
COLOUR
-(R-Y)
-(B-Y)
CONT
BRT
GND
CURRENT LIMIT
CUT OFF CONT.
R-IN
G-IN
B-IN
SW
SAND
R.F
G.F
B.F
VCC
B-OUT
G-OUT
R-OUT
J15
J16
C624 0.01 50V
C623 0.01 50V
C622 0.01 50V
C604 0.022
C603 0.022
C602 0.022
C627 16V 220
C614 0.01
C609 16V 470
L604 10
TPC2
C3 FROM E33
B
G
R
DATA BLK
SAND
+12V
TEXT
TPC71
TPC70
B-Y OUT
R-Y OUT
01
4510
S.C
TPC75
C619 0.022
C636 16V 22
R623 10
C642 0.01
C618 0.022
C673 27P
C674 27P
IC602 TDA4661/V2 (1H D.L.)
NC
R643 10K
C606 0.01
C628 0.022
X601 TSS2003M (8.867238MHZ)
C637 30P
APC
R615 10K
R630 680
C672 0.01
D605 MA4051M
R624 10
Q307 UN2214
R348 2.2K
R342 180K
R343 2.2K
R347 56K
TPC8
Q305 BC857B
R341 5.6K
R334 270K
R645
Q671 BC847B
C685 50V 1
R696 1000
R686 82K
R672 8.2K
D671 MA165
L601 10
TPC7
C653 0.01
C657 16V 10
C664 0.01
R667 8.2K
R668 2.7K
D601 MA858
C670 10P
R690 22K
C605 0.01
R609 8.2K
D600 MA858
R669 15K
R331 3.3K
D304 MA858
R323 18K
R629
D618
JW D604
Q605 BC847B
R675 4.7K
R676 33K
R653 2.2K
R654 10K
C654 0.01
C346 16V 47
R329 15K
D309 MA858
R326 15K
R678 330
JCB
C668 0.01
X661 EFCA4434BF
R333 100
TPC12
TPC13
TPC14
C335 16V 100
Q318 BC847B
R344 2.2K
R340 100
JCE
C2 FROM E34
SECAM TINT
S NOR
PIX
CONT
VIDEO DEF
COLOUR
BRT
R617 100
TPC15
R618 100
D306 MA4130
TPC16
D307 MA4130
R616 100
TPC17
D305 MA4130
R335 470 1/2W
C671 0.01
D314 MA4033M
C6 Y2
+12V
GND
G
B
R
ABL
SERVICE SW
FBT2 ABL
C4 FROM E32
TPC1 (ROAD)
TPC1 (SERVICE)

PARTS LOCATION

NOTE:
The number on mechanical parts indicates Ref. No of Replacement Parts list.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12
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1
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21
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2
24
26
16
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10
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8
3
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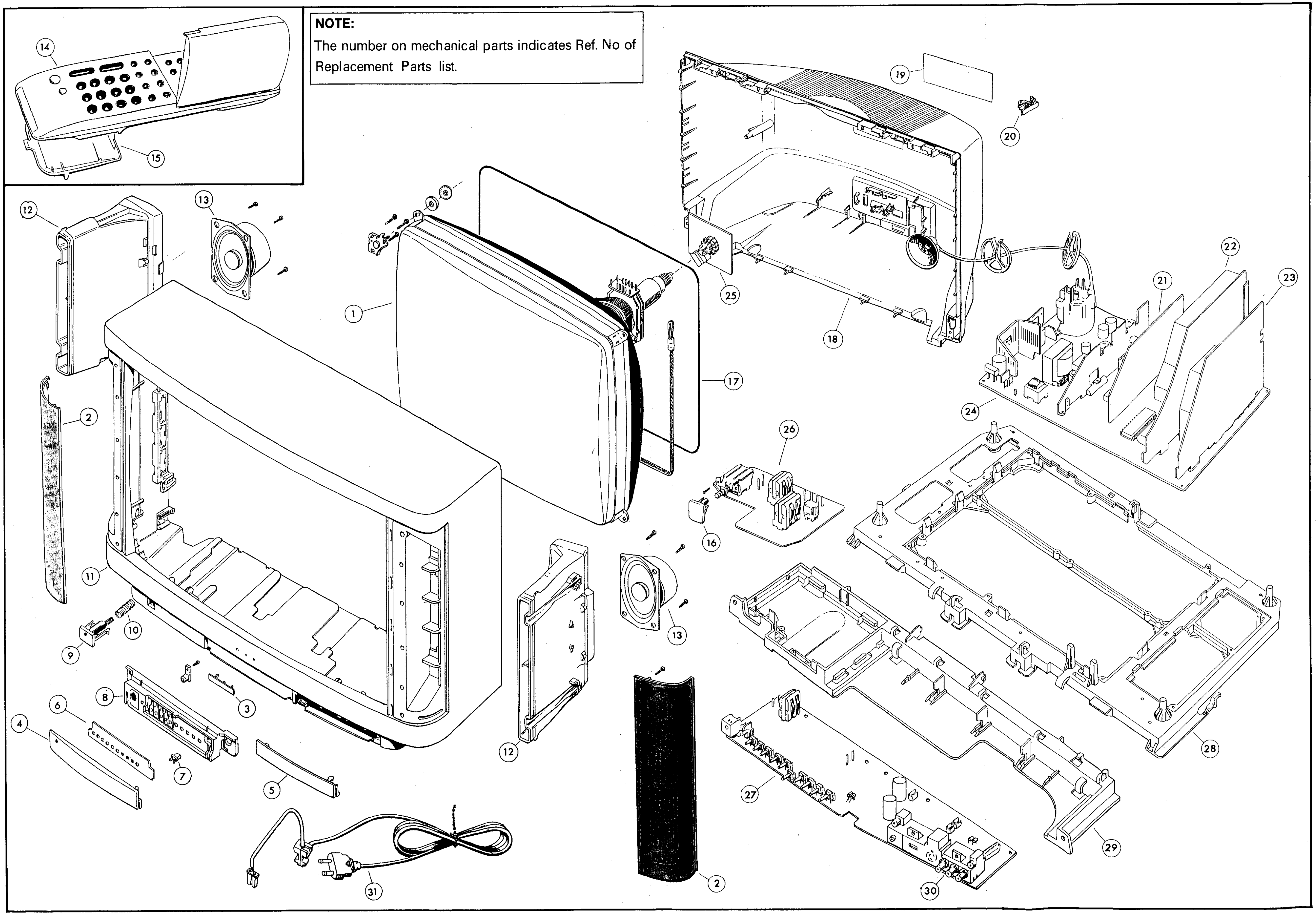
31
2
30

PARTS LOCATION

NOTE:
The number on mechanical parts indicates Ref. No of Replacement Parts list.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13
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22
21
23
18
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24
2
26
11
16
10
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9
8
3
6
4
7
12
28
5
27
29
31
2
30

REPLACEMENT PARTS LIST

Important Safety Notice
Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

MISCELLANEOUS COMPONENTS

Ref No.	Part No.	Description	
1)	**************	PLEASE REFER TO DIFFERENCE LIST	
2)	**************	PLEASE REFER TO DIFFERENCE LIST	
3)	TBM153010	PANASONIC BADGE	
4)	TKP1813001	DOOR	
5)	TKP1812282	AV DOOR	
6)	TBM170615	INDICATION SHEET	
7)	TEK6935	LID SWITCH	
8)	TKP1812991	CONTROL PANEL	
9)	TBX2883901	POWER BUTTON	
10)	TES2268	POWER KNOB SPRING	
11)	**************	PLEASE REFER TO DIFFERENCE LIST	
12/13)	EAG1207CG	SPEAKER	
14)	TNQ8E0463	REMOTE CONTROL	
15)	UR51EC749	BATTERY COVER	
16)	TKK188514	BUTTON SPACER	
17)	TLK259096N	DEGAUSS COIL	
18)	**************	PLEASE REFER TO DIFFERENCE LIST	
19)	**************	PLEASE REFER TO DIFFERENCE LIST	
20)	TKR27801	REAR COVER FIXING CLIP	
21)	TNP107920AT	C P.C.B.	⚠
22)	TNP107947AN	B P.C.B.	⚠
23)	TNP107946AR	H P.C.B.	⚠
24)	TNP197078BJ	E P.C.B.	⚠
25)	TNP107871AU	Y P.C.B.	⚠
26)	TNP107972AA	P P.C.B.	⚠
27)	TNP107971AK	M P.C.B.	⚠
28)	TMX17134−1	E PCB CHASSIS BRACKET	
29)	TKZ179228−1	C.R.T. FIXING METAL	
31)	TSX8E0011	MAINS LEAD	⚠
30)	TJB15661	AV TERMINAL	
	ERC12GK825	SOLID 0.5W 10% 8M2^	
	EYF52BC	FUSE HOLDER	
	F9−4−220	RELAY	
	TBM170614	DOOR INDICATION SHEET	
	TES1104	SPRING	
	TES4537	SPRING	
	TKP17A0101	SMOKED PANEL	
	TKP1813011	PANEL	
	TKZ179829	BRACKET	
	TMW17730	LED HOLDER	
	TMW27180−1	CHASSIS TUNER BRACKET	
	TMW27181−1	TUNER BRACKET	
	TMW27188−1	CHASSIS BRACKET	
	TQB8E0856	INSTRUCTION BOOK	⚠
	UM−3DEP−2P	BATTERY	
DL300	TLK160891E	DELAY LINE	
F811	2153.15H	FUSE	⚠
JK3001	TJB18615	AV2 BRACKET	
JK3101	TJS8E003	SCART SOCKET	
TUNER	UV916H−L	TUNER	⚠

CAPACITORS

Ref No.	Part No.	Description			
C011	ECEA1HFS010	ELECT	50V	1µF	
C012	222236576104	FILM	760V	100nF	
C013	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C014	ECEA1CU330	ELECT	16V	33µF	
C017	ECEA1CU100	ELECT	16V	10µF	
C018	ECEA0JKS220	ELECT	6.3V	22µF	
C020	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C029	ECEA1CFS330	ELECT	16V	33µF	
C030	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C032	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C070	ECEA1HGE010	ELECT	50V	1µF	
C101	ECUV1H390JX	S.M. CAP	50V	39pF	
C102	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C103	ECUV1H030CCX	S.M. CAP	50V	30pF	
C104	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C105	ECEA1CU470	ELECT	16V	47µF	
C107	ECUV1H220JRX	S.M. CAP	50V	22pF	
C110	ECUV1H390JSX	S.M. CAP	50V	39pF	
C112	222236516224	FILM	160V	220nF	
C116	ECEA1HU4R7	ELECT	50V	4.7µF	
C117	ECUV1H102KBX	S.M. CAP	50V	1nF	
C122	ECEA1CU470	ELECT	16V	47µF	
C123	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C124	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C125	ECQB1H333J	FILM	50V	33nF	
C126	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C127	ECEA1HFS1R5	ELECT	50V	1.5µF	
C128	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C129	ECEA1HNR47	ELECT	50V	0.47µF	
C130	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C131	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C132	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C133	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C134	ECUV1H090DCX	S.M. CAP	50V	90pF	
C137	ECUV1H070DCX	S.M. CAP	50V	7pF	
C138	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C139	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C142	ECEA1CU220	ELECT	16V	22µF	
C144	ECQB1H153K	FILM	50V	15nF	
C145	ECEA1HN010	ELECT	50V	1µF	
C147	ECEA1HU010	ELECT	50V	1µF	
C149	ECEA1HUR47	ELECT	50V	0.47µF	
C150	ECEA1CU100	ELECT	16V	10µF	
C151	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C152	ECEA1CU470	ELECT	16V	47µF	
C154	ECUV1H151JX	S.M. CAP	50V	150pF	
C157	ECEA1CU100	ELECT	16V	10µF	
C158	ECUV1H1R5CCX	S.M. CAP	50V	1.5pF	
C159	ECEA0JU221	ELECT	6.3V	220µF	
C160	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C174	ECEA1CU102	ELECT	16V	1000µF	
C175	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C176	ECEA1CU100	ELECT	16V	10µF	
C177	ECEA1EU330	ELECT	25V	33µF	
C178	ECEA1AGE102	ELECT	10V	1000µF	
C179	ECQB1H104J	FILM	50V	100nF	
C180	ECEA1HUR47	ELECT	50V	0.47µF	
C201	ECEA1EU221	ELECT	25V	220µF	
C253	ECEA1CU100	ELECT	16V	10µF	
C254	ECEA1HN2R2	ELECT	50V	2.2µF	
C255	ECEA1HN2R2	ELECT	50V	2.2µF	
C258	222236516274	FILM	160V	270nF	
C259	ECEA1AU101	ELECT	10V	100µF	
C260	222236516274	FILM	160V	270nF	
C261	ECQB1H152K	FILM	50V	1.5nF	
C264	ECEA1HU4R7	ELECT	50V	4.7µF	
C269	ECEA1AU101	ELECT	10V	100µF	
C271	ECQB1H152K	FILM	50V	1.5nF	
C272	ECA1VGE472				
C277	ECEA1EU101	ELECT	25V	100µF	
C278	ECEA1HU4R7	ELECT	50V	4.7µF	
C308	222236576104	FILM	760V	100nF	
C309	ECEA1HU100	ELECT	50V	10µF	
C311	ECEA1HUR47	ELECT	50V	0.47µF	
C315	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C317	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C331	ECUV1H820JCX	S.M. CAP	50V	82pF	
C332	ECEA1CN470	ELECT	16V	47µF	
C335	ECEA1CU101	ELECT	16V	100µF	
C346	ECEA1CN470	ELECT	16V	47µF	
C351	ECCR1H561J	CERAMIC	50V	560pF	
C352	ECCR1H681J	CERAMIC	50V	680pF	
C353	ECCR1H561J	CERAMIC	50V	560pF	
C355	ECKC3D152J	CERAMIC	2KV	1.5nF	⚠
C357	ECKC2H152J	CERAMIC	500V	1.5nF	⚠
C358	ECEA1HU220	ELECT	50V	22µF	
C360	ECEA1CU331	ELECT	16V	330µF	
C362	ECKC1H102J	CERAMIC	50V	1000pF	
C368	ECEA2EU010	ELECT	250V	1µF	
C369	ECEA1HUR47	ELECT	50V	0.47µF	
C400	ECKC1H103JB	CERAMIC	50V	10nF	
C401	222236516334	FILM	160V	330nF	
C402	222236516334	FILM	160V	330nF	
C452	ECKC2H471J	CERAMIC	500V	470pF	⚠
C453	ECQB1H153K	FILM	50V	15nF	
C454	ECEA1HFS4R7	ELECT	50V	4.7µF	
C455	ECEA1HGE101	ELECT	50V	100µF	
C456	ECEA1VU222	ELECT	35V	2200µF	
C457	222236516474	FILM	160V	470nF	
C458	ECEA1VU332	ELECT	35V	3300µF	
C459	222236516334	FILM	160V	330nF	
C460	222236516224	FILM	160V	220nF	
C461	222236516474	FILM	160V	470nF	
C462	ECQB1H223K	FILM	50V	22nF	
C501	222236576104	FILM	760V	100nF	
C502	ECQP1152GZ	FILM	100V	1.5nF	
C503	ECQB1H473K	FILM	50V	47nF	
C504	ECEA1CU102	ELECT	16V	1000µF	
C505	ECCR1H680J	CERAMIC	50V	68pF	
C506	ECEA1HU220	ELECT	50V	22µF	
C507	ECEA1HU4R7	ELECT	50V	4.7µF	
C508	ECEA1CU470	ELECT	16V	47µF	
C510	ECQB1H682K	FILM	50V	6.8nF	
C515	ECQB1H122J	FILM	50V	1.2nF	
C517	222236576104	FILM	760V	100nF	
C518	ECEA1CU100	ELECT	16V	10µF	
C519	ECEA1CU330	ELECT	16V	33µF	
C520	ECEA1VU4R7	ELECT	35V	4.7µF	
C522	ECEA1CN100	ELECT	16V	10µF	
C531	ECQM1103KZ	FILM	100V	10nF	
C532	ECKC1H821J	CERAMIC	50V	820pF	
C541	ECEA1HU2R2	ELECT	50V	2.2µF	
C542	ECEA1JGE100	ELECT	63V	10µF	
C543	ECEA1CU100	ELECT	16V	10µF	
C551	ECEA2CGE010	ELECT	160V	1µF	
C552	ECWF2H684J	FILM	500V	680nF	⚠
C553	ECEA2CU3R3	ELECT	160V	3.3µF	
C554	ECEA2EU330	ELECT	250V	33µF	
C555	ECKC2H471J	CERAMIC	500V	470pF	⚠
C556	ECKC3D561J	CERAMIC	2KV	560pF	⚠
C557	ECKC3F182J	CERAMIC	1.2KV	1800pF	⚠
C558	ECWH12H822J	CERAMIC	500V	8.2nF	⚠
C560	ECWF2H514J	FILM	500V	510nF	⚠
C564	ECQM10223JZ	FILM	1KV	22nF	
C565	ECWH12H272J	CERAMIC	500V	2.7nF	⚠
C566	ECKC2H471J	CERAMIC	500V	470pF	⚠
C569	222236576104	FILM	760V	100nF	
C576	ECEA1CU471	ELECT	16V	470µF	
C600	ECEA1CU471	ELECT	16V	470µF	
C601	ECEA1CU470	ELECT	16V	47µF	
C602	ECQB1H223K	FILM	50V	22nF	
C603	ECQB1H223K	FILM	50V	22nF	
C604	ECQB1H223K	FILM	50V	22nF	
C605	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C606	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C607	ECEA1HU010	ELECT	50V	1µF	
C609	ECEA1CU471	ELECT	16V	470µF	
C613	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C614	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C615	ECQB1H473K	FILM	50V	47nF	
C618	ECQB1H223K	FILM	50V	22nF	
C619	ECQB1H223K	FILM	50V	22nF	
C620	ECUV1H102KBX	S.M. CAP	50V	1nF	
C621	222236516334	FILM	160V	330nF	
C622	ECKC1H103JB	CERAMIC	50V	10nF	
C623	ECKC1H103JB	CERAMIC	50V	10nF	
C624	ECKC1H103JB	CERAMIC	50V	10nF	
C625	ECQB1H223K	FILM	50V	22nF	
C626	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C627	ECEA1CU221	ELECT	16V	220µF	
C628	ECQB1H223K	FILM	50V	22nF	
C633	ECQB1H223K	FILM	50V	22nF	
C636	ECEA1CU220	ELECT	16V	22µF	
C637	ECRLA030E53R	TRIMMER		30pF	
C638	222236516334	FILM	160V	330nF	
C639	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C642	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C644	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C646	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C652	ECEA1CU100	ELECT	16V	10µF	
C653	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C654	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C657	ECEA1CU100	ELECT	16V	10µF	
C662	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C664	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C668	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C670	ECUV1H100DCX	S.M. CAP	50V	10pF	
C671	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C672	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C673	ECUV1H270JX	S.M. CAP	50V	27pF	
C674	ECUV1H270JX	S.M. CAP	50V	27pF	
C681	ECEA1CN470	ELECT	16V	47µF	
C682	ECUV1H220JCX	S.M. CAP	50V	22pF	
C683	ECUV1H121JCX	S.M. CAP	50V	120pF	
C684	ECEA1HN010	ELECT	50V	1µF	
C685	ECEA1HU010	ELECT	50V	1µF	
C702	ECEA1HU101	ELECT	50V	100µF	
C703	ECKC1H103JB	CERAMIC	50V	10nF	
C704	ECKC1H103JB	CERAMIC	50V	10nF	
C705	ECQB1H332K	FILM	50V	3.3nF	
C706	ECKC1H103JB	CERAMIC	50V	10nF	
C707	ECQB1H103J	FILM	50V	10nF	
C708	ECKC1H103JB	CERAMIC	50V	10nF	
C812	ECQU2A473MN	FILM	200V	47nF	⚠
C813	ECQU2A823MNB	FILM	200V	82nF	
C814	ECQE6104K	FILM	600V	100nF	⚠
C821	ECKC2H472J	CERAMIC	500V	4.7nF	⚠
C822	ECKC2H472J	CERAMIC	500V	4.7nF	⚠
C823	ECKC2H472J	CERAMIC	500V	4.7nF	⚠
C824	ECKC2H472J	CERAMIC	500V	4.7nF	⚠
C825	ECOS2GG181NG	ELECT	400V	180µF	⚠
C827	ECKC1H272J	CERAMIC	50V	2.7nF	
C828	ECEA1HFS470	ELECT	50V	47µF	
C829	ECKC2H471J	CERAMIC	500V	470pF	⚠
C831	ECKC3D122J	CERAMIC	2KV	1200pF	⚠
C833	ECKC2H103J	CERAMIC	50V	10nF	⚠

Ref No.	Part No.	Description			
C834	222236516334	FILM	160V	330nF	
C836	ECKCNS332J	CERAMIC	1.2KV	3.3nF	⚠
C851	ECKC3D821JB	CERAMIC	2KV	820pF	⚠
C852	ECKC2H681J	CERAMIC	500V	680pF	⚠
C853	ECKC2H102J	CERAMIC	500V	1nF	⚠
C854	ECEA2EG151UE	ELECT	250V	150µF	
C855	ECEA1VGE331	ELECT	35V	330µF	
C856	ECEA1VGE102	ELECT	35V	1000µF	
C857	ECKC2H471J	CERAMIC	500V	470pF	⚠
C858	ECEA1EGE102	ELECT	25V	1000µF	
C859	ECEA1EU100	ELECT	25V	10µF	
C860	ECKC1H103JB	CERAMIC	50V	10nF	
C861	ECEA1CU101	ELECT	16V	100µF	
C863	222236516105	FILM	160V	1µF	
C872	ECEA1CU100	ELECT	16V	10µF	
C880	ECEA1HGE4R7	ELECT	50V	4.7µF	
C881	ECEA1CGE100	ELECT	16V	10µF	
C1134	ECKC1H271J	CERAMIC	50V	270pF	
C1136	ECEA0JU101	ELECT	6.3V	100µF	
C1137	ECKC1H223J	CERAMIC	50V	22nF	
C1201	ECKC1H103JB	CERAMIC	50V	10nF	
C1203	ECCR1H151J	CERAMIC	50V	150pF	
C1204	ECCR1H101J	CERAMIC	50V	100pF	
C1206	ECEA1CU102	ELECT	16V	1000µF	
C1207	ECCR1H121J	CERAMIC	50V	120pF	
C1208	222236576104	FILM	760V	100nF	
C1210	222236576104	FILM	760V	100nF	
C1212	ECEA1CU100	ELECT	16V	10µF	
C1214	ECEA0JGE102	ELECT	6.3V	1000µF	
C1217	ECKC1H103JB	CERAMIC	50V	10nF	
C1219	ECCR1H680J	CERAMIC	50V	68pF	
C1220	ECKC1H471J	CERAMIC	50V	470pF	
C1221	ECKC1H103JB	CERAMIC	50V	10nF	
C1222	ECEA0JU471	ELECT	6.3V	470µF	
C1227	ECKC1H103JB	CERAMIC	50V	10nF	
C1235	ECEA1HU2R2	ELECT	50V	2.2µF	
C1236	ECEA1HU2R2	ELECT	50V	2.2µF	
C1237	ECKC1H472J	CERAMIC	50V	4.7nF	
C1239	ECCR1H560J	CERAMIC	50V	56pF	
C1246	ECCR1H221J	CERAMIC	50V	220pF	
C1247	ECKC1H181J	CERAMIC	50V	180pF	
C1250	EXFP6471ZF	NETWORK			
C1251	ECKC1H101J	CERAMIC	50V	100pF	
C1252	ECEA1CU100	ELECT	16V	10µF	
C1253	ECCR1H101J	CERAMIC	50V	100pF	
C1254	222236576104	FILM	760V	100nF	
C1256	ECEA0JU102	ELECT	6.3V	1000µF	
C1257	ECKC1H101J	CERAMIC	50V	100pF	
C1259	ECKC1H271J	CERAMIC	50V	270pF	
C1260	ECCR1H121J	CERAMIC	50V	120pF	
C1262	EXFP6471ZF	NETWORK			
C1263	ECKC1H103JB	CERAMIC	50V	10nF	
C1264	ECKC1H471J	CERAMIC	50V	470pF	
C1265	ECKC1H471J	CERAMIC	50V	470pF	
C1266	ECKC1H471J	CERAMIC	50V	470pF	
C1267	ECKC1H471J	CERAMIC	50V	470pF	
C1269	ECCR1H121J	CERAMIC	50V	120pF	
C1270	ECCR1H391J	CERAMIC	50V	390pF	
C2001	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2002	ECUV1H331JCX	S.M. CAP	50V	330pF	
C2003	ECQB1H223K	FILM	50V	22nF	
C2004	ECQB1H104J	FILM	50V	100nF	
C2005	ECUV1H101JCX	S.M. CAP	50V	100pF	
C2006	ECUV1H101JCX	S.M. CAP	50V	100pF	
C2007	ECUV1H330JCX	S.M. CAP	50V	33pF	
C2008	ECUV1H330JCX	S.M. CAP	50V	33pF	
C2009	ECUV1H331JCX	S.M. CAP	50V	330pF	
C2010	ECUV1H682KBX	S.M. CAP	50V	6.8nF	
C2011	ECUV1H102KBX	S.M. CAP	50V	1nF	
C2012	ECUV1H151JCX	S.M. CAP	50V	150pF	
C2013	ECUV1H151JCX	S.M. CAP	50V	150pF	
C2014	ECQB1H104J	FILM	50V	100nF	
C2015	222236516224	FILM	160V	220nF	
C2016	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2017	ECEA1CU470	ELECT	16V	47µF	
C2018	ECEA1CU470	ELECT	16V	47µF	
C2019	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2020	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2021	ECEA1CU470	ELECT	16V	47µF	
C2022	ECEA1CU470	ELECT	16V	47µF	
C2023	ECEA1CN100	ELECT	16V	10µF	
C2024	ECUV1H331JCX	S.M. CAP	50V	330pF	
C2025	ECUV1H680JCX	S.M. CAP	50V	68pF	
C2026	ECUV1H331JCX	S.M. CAP	50V	330pF	
C2027	ECUV1H680JCX	S.M. CAP	50V	68pF	
C2028	ECEA1CN100	ELECT	16V	10µF	
C2029	ECEA1CU470	ELECT	16V	47µF	
C2030	ECEA1CU470	ELECT	16V	47µF	
C2031	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2032	ECEA1CU470	ELECT	16V	47µF	
C2033	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2034	ECUV1H101JCX	S.M. CAP	50V	100pF	
C2035	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2037	ECEA1AU101	ELECT	10V	100µF	
C2038	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2039	ECUV1H102KBX	S.M. CAP	50V	1nF	
C2040	ECUV1H102KBX	S.M. CAP	50V	1nF	
C2041	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2042	ECQB1H223K	FILM	50V	22nF	
C2043	222236516334	FILM	160V	330nF	
C2050	ECEA1CU100	ELECT	16V	10µF	
C2056	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2060	ECQB1H104J	FILM	50V	100nF	
C2066	ECUV1H102KBX	S.M. CAP	50V	1nF	
C2067	ECUV1H102KBX	S.M. CAP	50V	1nF	
C2068	ECUV1H272KBX	S.M. CAP	50V	2.7nF	
C2069	ECUV1H272KBX	S.M. CAP	50V	2.7nF	
C2070	ECUV1H151JCX	S.M. CAP	50V	150pF	
C2071	ECUV1H151JCX	S.M. CAP	50V	150pF	
C2112	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2113	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2114	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2119	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2120	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2122	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2123	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2125	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2126	ECUV1H390JRX	S.M. CAP	50V	39pF	
C2127	ECEA1HUR47	ELECT	50V	0.47µF	
C2132	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2133	ECQB1H104J	FILM	50V	100nF	
C2134	ECQB1H223K	FILM	50V	22nF	
C2135	ECEA1CU101	ELECT	16V	100µF	
C2136	ECUV1H120JCX	S.M. CAP	50V	12pF	
C2137	ECQB1H102J	FILM	50V	1nF	
C2138	ECEA1HU4R7	ELECT	50V	4.7µF	
C2141	ECQB1H223K	FILM	50V	22nF	
C2142	ECEA1CU101	ELECT	16V	100µF	
C2143	ECUV1H080DCX	S.M. CAP	50V	80pF	
C2145	ECQB1H102J	FILM	50V	1nF	
C2146	ECQB1H104J	FILM	50V	100nF	
C2149	ECUV1H220JRX	S.M. CAP	50V	22pF	
C2150	ECUV1H470JRX	S.M. CAP	50V	47pF	
C2154	ECUV1H152KBX	S.M. CAP	50V	1.5pF	
C2202	ECEA1EN4R7	ELECT	25V	4.7µF	
C2203	ECEA1HN010	ELECT	50V	1µF	
C2204	ECEA1HUR47	ELECT	50V	0.47µF	
C2205	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C2206	ECEA1CU100	ELECT	16V	10µF	
C2207	222236516224	FILM	160V	220nF	

Ref No.	Part No.	Description		
C2208	ECEA1EN4R7	ELECT	25V	4.7µF
C2219	ECEA1CN100	ELECT	16V	10µF
C2220	ECEA1CN470	ELECT	16V	47µF
C2221	ECEA1CN470	ELECT	16V	47µF
C2242	ECEA1CN100	ELECT	16V	10µF
C2252	ECEA1CU470	ELECT	16V	47µF
C2254	ECEA1CU470	ELECT	16V	47µF
C2411	ECEA1HU010	ELECT	50V	1µF
C2416	ECQB1H103J	FILM	50V	10nF
C2417	ECEA1HUR33	ELECT	50V	0.33µF
C2421	ECEA1CU100	ELECT	16V	10µF
C2422	ECEA1CU100	ELECT	16V	10µF
C2423	ECQB1H103J	FILM	50V	10nF
C2424	ECEA1HUR33	ELECT	50V	0.33µF
C2425	ECEA1CU100	ELECT	16V	10µF
C2426	ECEA1CU100	ELECT	16V	10µF
C2427	ECEA1CU100	ELECT	16V	10µF
C2428	ECQB1H103J	FILM	50V	10nF
C2429	ECEA1CU470	ELECT	16V	47µF
C2430	ECEA1HU010	ELECT	50V	1µF
C2431	ECEA1CU100	ELECT	16V	10µF
C2459	ECEA1CN100	ELECT	16V	10µF
C2460	ECEA1CN100	ELECT	16V	10µF
C2653	ECEA1EU102	ELECT	25V	1000µF
C2654	ECEA1EU102	ELECT	25V	1000µF
C2664	222236576104	FILM	760V	100nF
C2665	222236576104	FILM	760V	100nF
C2666	ECEA1HU100	ELECT	50V	10µF
C2667	ECEA1HU100	ELECT	50V	10µF
C3001	ECEA1CU471	ELECT	16V	470µF
C3002	ECEA1CU330	ELECT	16V	33µF
C3003	ECEA1CU100	ELECT	16V	10µF
C3004	ECUV1H103ZFX	S.M. CAP	50V	10nF
C3005	ECEA1CU100	ELECT	16V	10µF
C3006	ECEA1CN100	ELECT	16V	10µF
C3007	ECUV1H101JCX	S.M. CAP	50V	100pF
C3008	ECEA1CU221	ELECT	16V	220µF
C3009	ECEA1CU100	ELECT	16V	10µF
C3011	ECEA1CU100	ELECT	16V	10µF
C3012	ECEA1CU100	ELECT	16V	10µF
C3014	ECUV1H101JCX	S.M. CAP	50V	100pF
C3015	ECEA1CN100	ELECT	16V	10µF
C3016	ECEA1HU4R7	ELECT	50V	4.7µF
C3017	ECEA1HU4R7	ELECT	50V	4.7µF
C3018	ECEA1CU100	ELECT	16V	10µF
C3019	ECEA1CU100	ELECT	16V	10µF
C3020	ECEA1CU471	ELECT	16V	470µF
C3021	ECUV1H103ZFX	S.M. CAP	50V	10nF
C3022	ECEA1CN100	ELECT	16V	10µF
C3023	ECEA1HU4R7	ELECT	50V	4.7µF
C3024	ECEA1HU4R7	ELECT	50V	4.7µF
C3029	ECUV1H103ZFX	S.M. CAP	50V	10nF
C3030	ECEA1CU101	ELECT	16V	100µF
C3032	ECEA1CU220	ELECT	16V	22µF
C3034	ECEA1CU220	ELECT	16V	22µF
C3035	ECUV1H121JCX	S.M. CAP	50V	120pF
C3037	ECQB1H104J	FILM	50V	100nF
C3039	ECEA1CU471	ELECT	16V	470µF
C3050	ECEA1CN101	ELECT	16V	100µF
C3061	ECUV1H103ZFX	S.M. CAP	50V	10nF
C3079	ECUV1H103ZFX	S.M. CAP	50V	10nF
C3167	ECEA1CU471	ELECT	16V	470µF
C3169	ECEA1CN100	ELECT	16V	10µF
C3170	ECEA1CU471	ELECT	16V	470µF
C3171	ECEA1CN470	ELECT	16V	47µF
C3172	ECEA1HN010	ELECT	50V	1µF
C3173	ECEA1HN4R7	ELECT	50V	4.7µF
C3174	ECEA1HN010	ELECT	50V	1µF
C3175	ECEA1HN4R7	ELECT	50V	4.7µF
C3176	ECEA1HN4R7	ELECT	50V	4.7µF
C3177	222236516224	FILM	160V	220nF

Ref No.	Part No.	Description		
C3301	ECKC1H103JB	CERAMIC	50V	10nF
C3302	ECEA1CU471	ELECT	16V	470µF
C3303	ECEA1HU3R3	ELECT	50V	3.3µF
C3304	ECKC1H103JB	CERAMIC	50V	10nF
C3306	ECEA1CU100	ELECT	16V	10µF
C3307	ECEA1HUR47	ELECT	50V	0.47µF
C3330	ECQB1H103J	FILM	50V	10nF
C3331	ECEA1CU471	ELECT	16V	470µF
C3332	ECEA1CU101	ELECT	16V	100µF
C3333	ECCR1H680J	CERAMIC	50V	68pF
C3334	ECCR1H680J	CERAMIC	50V	68pF
C3335	ECCR1H680J	CERAMIC	50V	68pF
C3502	ECQB1H104J	FILM	50V	100nF
C3503	222236516334	FILM	160V	330nF
C3505	ECQB1H103J	FILM	50V	10nF
C3507	ECEA1CU471	ELECT	16V	470µF
C3508	ECUV1H103ZFX	S.M. CAP	50V	10nF
C3518	ECQB1H104J	FILM	50V	100nF
C3521	ECQB1H104J	FILM	50V	100nF
C3522	ECEA1HU2R2	ELECT	50V	2.2µF
C3523	ECEA0JU101	ELECT	6.3V	100µF
C3524	ECEA1CU101	ELECT	16V	100µF
C3525	ECEA1CU470	ELECT	16V	47µF
C3526	ECUV1H103ZFX	S.M. CAP	50V	10nF
C3527	ECUV1H150JCX	S.M. CAP	50V	15pF
C3528	ECUV1H100DCX	S.M. CAP	50V	10pF
C3530	ECEA0JU101	ELECT	6.3V	100µF
C3532	ECQB1H104J	FILM	50V	100nF
C3533	ECQB1H104J	FILM	50V	100nF
C3534	ECEA1CU101	ELECT	16V	100µF
C3536	ECUV1H103ZFX	S.M. CAP	50V	10nF
C3546	ECUV1H103ZFX	S.M. CAP	50V	10nF
C3548	ECEA0JU101	ELECT	6.3V	100µF
C3550	ECEA1HU0R1	ELECT	50V	0.1µF
C3552	ECUV1H103ZFX	S.M. CAP	50V	10nF
C3553	ECEA1CU221	ELECT	16V	220µF
C3555	ECEA1CN330	ELECT	16V	33µF
C3561	ECEA1HU010	ELECT	50V	1µF
C3563	ECEA1CU101	ELECT	16V	100µF
C3564	ECUV1H103ZFX	S.M. CAP	50V	10nF
C3565	ECUV1H102KBX	S.M. CAP	50V	1nF
C3570	ECEA0JU471	ELECT	6.3V	470µF
C3571	ECQB1H104J	FILM	50V	100nF
C3573	ECQB1H104J	FILM	50V	100nF
C3574	ECEA1CU100	ELECT	16V	10µF
C3575	ECEA1CU100	ELECT	16V	10µF
C3576	ECEA1CU100	ELECT	16V	10µF

DIODES

D007	MA151ATX	DIODE
D070	MA1300MTA	DIODE
D173	MA4056	DIODE
D174	MA29TA5	DIODE
D175	MA29TA5	DIODE
D201	MA165TA5	DIODE
D206	MA165TA5	DIODE
D207	MA165TA5	DIODE
D209	MA4056	DIODE
D210	MA165TA5	DIODE
D250	MA165TA5	DIODE
D251	MA700TA5	DIODE
D252	MA700TA5	DIODE
D304	MA858TA5	DIODE
D305	MA4130	DIODE
D306	MA4130	DIODE
D307	MA4130	DIODE
D309	MA858TA5	DIODE
D314	MA4033	DIODE
D355	MA165TA5	DIODE

Ref No.	Part No.	Description
D356	MA165TA5	DIODE
D357	MA165TA5	DIODE
D358	MA165TA5	DIODE
D451	BYD31D-26MM	DIODE
D452	MA165TA5	DIODE
D453	MA165TA5	DIODE
D501	ERA15-02V3	DIODE
D502	MA700TA5	DIODE
D503	MA165TA5	DIODE
D504	MA4051	DIODE
D505	MA165TA5	DIODE
D511	MA4047	DIODE
D533	MA4091	DIODE
D534	MA165TA5	DIODE
D541	MA4360	DIODE
D551	BYD31D-26MM	DIODE
D552	MA167TA5	DIODE
D554	BYD31D-26MM	DIODE
D560	MA165TA5	DIODE
D600	MA858TA5	DIODE
D601	MA858TA5	DIODE
D605	MA4051	DIODE
D617	MA29TA5	DIODE
D671	MA165TA5	DIODE
D701	MA165TA5	DIODE
D702	MA4360	DIODE
D751	ERD07-15L7	DIODE
D752	TVSRU2AM	DIODE
D811	232266296209	THERMISTOR
D821	RBV4-08	DIODE
D822	ERA22-04V3	DIODE
D823	ERA22-08V3	DIODE
D825	TVSRU2AM	DIODE
D826	TLP634LF2	OPTO-COUPLER
D828	MA4360	DIODE
D851	RU4BLF-L1	DIODE
D852	TVSRU2AM	DIODE
D853	RU4AMLF-M1	DIODE
D855	FML22SLF610	DIODE
D870	MA4082	DIODE
D871	MA165TA5	DIODE
D880	MA165TA5	DIODE
D890	MA165TA5	DIODE
D891	MA165TA5	DIODE
D893	MA165TA5	DIODE
D1101	LN81RPHL	DIODE
D1131	TVSRM10B	DIODE
D1132	TVSRM10B	DIODE
D1208	TVSS1WBS10	DIODE
D1225	MA4082	DIODE
D1232	MA4033	DIODE
D1235	MA165TA5	DIODE
D1243	MA165TA5	DIODE
D1250	MA4068HTA	DIODE
D1253	MA165TA5	DIODE
D1255	MA165TA5	DIODE
D2001	BB405B	DIODE
D2003	MA165TA5	DIODE
D2004	BB809	DIODE
D2201	MA700TA5	DIODE
D2405	MA4056	DIODE
D2406	MA4056	DIODE
D3002	MA165TA5	DIODE
D3004	MA165TA5	DIODE
D3006	MA165TA5	DIODE
D3007	MA165TA5	DIODE
D3008	MA165TA5	DIODE
D3009	MA165TA5	DIODE
D3010	MA165TA5	DIODE
D3011	MA165TA5	DIODE
D3012	MA165TA5	DIODE
D3013	MA165TA5	DIODE
D3016	MA4120	DIODE
D3017	MA4120	DIODE
D3162	MA165TA5	DIODE
D3163	MA165TA5	DIODE
D3176	MA165TA5	DIODE
D3301	MA858TA5	DIODE
D3302	MA29TA5	DIODE
D3303	MA165TA5	DIODE
D3304	MA165TA5	DIODE
D3305	MA165TA5	DIODE
D3306	MA165TA5	DIODE
D3307	MA4068HTA	DIODE
D3308	MA165TA5	DIODE
D3309	MA700TA5	DIODE
D3310	MA165TA5	DIODE
D3311	MA165TA5	DIODE
D3503	MA165TA5	DIODE
D3504	MA165TA5	DIODE
D3505	MA165TA5	DIODE
D3509	MA4082	DIODE
D3526	MA165TA5	DIODE
D3527	MA4082	DIODE
D3531	MA165TA5	DIODE
D3541	MA165TA5	DIODE
D3542	MA165TA5	DIODE

INTEGRATED CIRCUITS

IC101	M52301SP	VIDEO I.F.
IC1131	SBX1620-46	STANDBY
IC1202	ST24C02AB1	EEPROM
IC1204	L78M05MRB	5V REGULATOR
IC1212	MN1280R	RESET
IC1213	MN1872432TMF	DECODER AND CONTROL
IC178	L78M05MRB	5V REGULATOR
IC179	L78M12MRB	12V REGULATOR
IC2001	TDA8732	TELETEXT CONTROL
IC2002	SAA7282ZP-M3	TELETEXT PROCESSOR
IC2101	AN5215	SOUND I.F.
IC2102	AN5215	SOUND I.F.
IC2201	TDA8417	STEREO DECODER
IC2402	CXA1279AS	AUDIO PRE-AMP
IC251	LA4280-TV	AUDIO OUTPUT
IC303	TDA3504	VIDEO PROCESSOR
IC451	TDA3654	VERTICAL OUT I.C.
IC501	TDA2579B	TIMEBASE JUNGLE
IC601	TDA4510	CHROMA PROCESSOR
IC602	TDA4661-V2	DELAY LINE
IC701	TDA4950	E/W CORRECTION
IC821	STR56041-M	TRANSISTOR
IC851	L78M12MRB	12V REGULATOR
IC3001	LA7222-TV	SWITCHING
IC3002	M52472P	SWITCHING
IC3301	AN5860	SWITCHING
IC3302	AN5862K	SWITCHING
IC3501	SAA5246APEM6	TELETEXT DECODER
IC3503	ST24C02AB1	EEPROM
IC3505	L78M05MRB	5V REGULATOR
IC3506	LC3664BL-10	SRAM MEMORY
C3507	PCF84C81A076	MEMORY
IC3508	TC4066BP	SWITCHING

COILS

LC101	ELB5A077	COIL
LC102	EIL7EN014Q	COIL
LC2148	EIL7EN013Q	COIL
LC301	ELB4N057	COIL

Ref No.	Part No.	Description
L012	ELESN181KA	COIL
L013	EXCELDR35V	COIL
L27	ELESN1R0KA	COIL
L28	ELESN1R0KA	COIL
L101	ELESN120KA	COIL
L103	TLT392J993R	COIL
L104	ELESN180KA	COIL
L105	TLI159X52	COIL
L106	TLI157X53	COIL
L107	ELESN2R2KA	COIL
L110	TLI157X57	COIL
L113	ELESNR82KA	COIL
L120	ELESN220KA	COIL
L351	ELESN181KA	COIL
L352	ELESN181KA	COIL
L353	ELESN181KA	COIL
L482	ELESN8R2KA	COIL
L552	ELC08D055	COIL
L553	ELH5L713	COIL
L554	ELC15B004	COIL
L601	ELESN100KA	COIL
L604	ELESN100KA	COIL
L681	ELESN220KA	COIL
L682	ELESN390KA	COIL
L701	ELESN8R2KA	COIL
L751	ELC10D006	COIL
L811	ELF18D450L	FILTER
L812	ELF18D450L	FILTER
L823	EXCELSA24T	COIL
L824	EXCELSA24T	COIL
L852	EXCELSA24T	COIL
L853	TLT030L119C	COIL
L857	EXCELSA35T	COIL
L859	EXCELSA24T	COIL
L861	EXCELDR35V	COIL
L1131	ELESN100KA	COIL
L1200	ELEXT100KA	COIL
L1201	ELEXT100KA	COIL
L1203	ELEXT100KA	COIL
L1204	ELKTR150GA	COIL
L1205	ELESN8R2KA	COIL
L1206	ELEXT100KA	COIL
L1210	ELEXT100KA	COIL
L1220	ELEXT100KA	COIL
L1223	ELEXT100KA	COIL
L1232	ELKTR150GA	COIL
L1233	ELKTR150GA	COIL
L1234	ELKTR150GA	COIL
L1235	ELEXT100KA	COIL
L1236	EXCELSA35T	COIL
L1240	ELESN100KA	COIL
L1241	ELEXT100KA	COIL
L1246	ELEXT1R0KA	COIL
L1247	ELEXT100KA	COIL
L1248	ELEXT100KA	COIL
L1250	ELEXT100KA	COIL
L1252	ELEXT100KA	COIL
L1253	ELEXT100KA	COIL
L1254	ELEXT100KA	COIL
L1255	ELEXT100KA	COIL
L2001	ELESN102KA	COIL
L2002	ELESN102KA	COIL
L2003	EXCEMT103DTM	COIL
L2004	EXCEMT103DTM	COIL
L2011	ELESN180KA	COIL
L2012	ELESN180KA	COIL
L2013	ELESN180KA	COIL
L2105	TLI159X52	COIL
L2110	TLS153X57Q	COIL
L2112	TLS153X60Q	COIL
L2115	ELESNR82KA	COIL

Ref No.	Part No.	Description
L3001	ELESN100KA	COIL
L3006	ELESN100KA	COIL
L3163	ELESN470KA	COIL
L3501	ELEV4R7KA	COIL
L3502	ELESN100KA	COIL
L3503	ELESN4R7KA	COIL
L3504	ELESN100KA	COIL
L3505	ELESN100KA	COIL
L3507	ELESN100KA	COIL
L3510	ELESN100KA	COIL

TRANSISTORS

Ref No.	Part No.	Description
Q101	2SC3311ATA	TRANSISTOR
Q102	BC847B	TRANSISTOR
Q104	2SC2636-T	TRANSISTOR
Q105	BF370	TRANSISTOR
Q120	2SB709ATX	TRANSISTOR
Q180	UN2211TX	TRANSISTOR
Q201	2SA1309ATA	TRANSISTOR
Q250	2SC3311ATA	TRANSISTOR
Q302	2SD965-R	TRANSISTOR
Q303	BC847B	TRANSISTOR
Q305	BC857B	TRANSISTOR
Q307	UN2214TX	TRANSISTOR
Q318	BC847B	TRANSISTOR
Q351	2SC4714RL2	TRANSISTOR
Q352	2SC4714RL2	TRANSISTOR
Q356	2SA719-TA	TRANSISTOR
Q401	2SC3311ATA	TRANSISTOR
Q502	2SC3311ATA	TRANSISTOR
Q503	2SC3311ATA	TRANSISTOR
Q531	2SD836-AL	TRANSISTOR
Q532	2SC3311ATA	TRANSISTOR
Q533	2SC3311ATA	TRANSISTOR
Q541	2SA1309ATA	TRANSISTOR
Q542	2SC3311ATA	TRANSISTOR
Q554	2SD1577RL	TRANSISTOR
Q602	BC847B	TRANSISTOR
Q605	BC847B	TRANSISTOR
Q671	BC847B	TRANSISTOR
Q681	BC847B	TRANSISTOR
Q682	BC857B	TRANSISTOR
Q693	BC847B	TRANSISTOR
Q701	UN4211TA	TRANSISTOR
Q821	2SD965-R	TRANSISTOR
Q822	2SD965-R	TRANSISTOR
Q851	UN4111TA	TRANSISTOR
Q880	2SA1018Q	TRANSISTOR
Q890	2SC3311ATA	TRANSISTOR
Q1131	2SC3311ATA	TRANSISTOR
Q1132	UN4213TA	TRANSISTOR
Q1201	2SC3311ATA	TRANSISTOR
Q1215	2SC3311ATA	TRANSISTOR
Q1216	2SC3311ATA	TRANSISTOR
Q1255	2SC3311ATA	TRANSISTOR
Q2002	2SC2480TX	TRANSISTOR
Q2003	2SC2480TX	TRANSISTOR
Q2004	BC847B	TRANSISTOR
Q2005	BC847B	TRANSISTOR
Q2006	BC847B	TRANSISTOR
Q2101	2SC2636-T	TRANSISTOR
Q2103	2SC1047-BCD	TRANSISTOR
Q2202	BC857B	TRANSISTOR
Q2203	BC847B	TRANSISTOR
Q2204	BC847B	TRANSISTOR
Q2205	BC847B	TRANSISTOR
Q2408	2SC3311ATA	TRANSISTOR
Q2409	2SC3311ATA	TRANSISTOR
Q2410	2SA1309ATA	TRANSISTOR

Ref No.	Part No.	Description
Q3001	2SD1865TV2	TRANSISTOR
Q3003	2SC1318-S	TRANSISTOR
Q3004	2SD1865TV2	TRANSISTOR
Q3006	BC847B	TRANSISTOR
Q3007	2SC2480TX	TRANSISTOR
Q3008	BC847B	TRANSISTOR
Q3009	BC847B	TRANSISTOR
Q3010	BC847B	TRANSISTOR
Q3011	BC847B	TRANSISTOR
Q3012	BC847B	TRANSISTOR
Q3014	UN2211TX	TRANSISTOR
Q3017	BC847B	TRANSISTOR
Q3019	2SD1865TV2	TRANSISTOR
Q3020	2SD1865TV2	TRANSISTOR
Q3022	BC857B	TRANSISTOR
Q3023	BC857B	TRANSISTOR
Q3159	2SA1309ATA	TRANSISTOR
Q3161	2SD1865TV2	TRANSISTOR
Q3162	2SD1865TV2	TRANSISTOR
Q3163	2SC3311ATA	TRANSISTOR
Q3164	UN4211TA	TRANSISTOR
Q3165	2SA1309ATA	TRANSISTOR
Q3166	2SA1309ATA	TRANSISTOR
Q3167	2SC1318-S	TRANSISTOR
Q3168	2SC3311ATA	TRANSISTOR
Q3301	2SC3311ATA	TRANSISTOR
Q3302	2SC3311ATA	TRANSISTOR
Q3303	2SC3311ATA	TRANSISTOR
Q3304	2SC3311ATA	TRANSISTOR
Q3305	2SC3311ATA	TRANSISTOR
Q3306	2SC3311ATA	TRANSISTOR
Q3330	2SA1309ATA	TRANSISTOR
Q3331	2SA1309ATA	TRANSISTOR
Q3332	2SA1309ATA	TRANSISTOR
Q3501	BC847B	TRANSISTOR
Q3502	BC847B	TRANSISTOR
Q3506	BC847B	TRANSISTOR
Q3515	BC847B	TRANSISTOR
Q3522	BC857B	TRANSISTOR
Q3523	UN2213TX	TRANSISTOR

RESISTORS

Ref No.	Part No.	Description			
R.103	ERJ6GMY0R00	S.M. WIRE	LINK		
R.111	ERJ6GMY0R00	S.M. WIRE	LINK		
R.15	ERJ6GMY0R00	S.M. WIRE	LINK		
R.16	ERJ6GMY0R00	S.M. WIRE	LINK		
R.21	ERJ6GMY0R00	S.M. WIRE	LINK		
R.22	ERJ6GMY0R00	S.M. WIRE	LINK		
R.305	ERJ6GMY0R00	S.M. WIRE	LINK		
R.629	ERJ6GMY0R00	S.M. WIRE	LINK		
R.645	ERJ6GMY0R00	S.M. WIRE	LINK		
R.663	ERJ6GMY0R00	S.M. WIRE	LINK		
R.680	ERJ6GMY0R00	S.M. WIRE	LINK		
R011	ERD25TJ223	CARBON	0.25W	5%	22KΩ
R012	ERD25TJ101	CARBON	0.25W	5%	100Ω
R013	ERD25TJ101	CARBON	0.25W	5%	100Ω
R017	ERJ6GEYJ272	S.M.CARB	0.1W	5%	2K7Ω
R018	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R070	ERG3SJ223	METAL	5W	5%	22KΩ
R101	ERJ6GMYJ271	S.M.CARB	0.1W	5%	270Ω
R102	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680Ω
R105	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3Ω
R106	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6Ω
R107	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R108	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R109	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R110	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47Ω
R113	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330Ω
R114	ERJ6GEYJ124	S.M.CARB	0.1W	5%	120KΩ
R115	ERJ6GEYJ124	S.M.CARB	0.1W	5%	120KΩ
R116	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R118	ERJ6GMYJ271	S.M.CARB	0.1W	5%	270Ω
R119	ERJ6GEYJ184	S.M.CARB	0.1W	5%	180KΩ
R120	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330Ω
R122	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R125	ERJ6GEYJ392	S.M.CARB	0.1W	5%	3K9Ω
R126	ERJ6GEYJ392	S.M.CARB	0.1W	5%	3K9Ω
R127	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω
R128	EVNDCAA03B53	CONTROL			5KΩ
R129	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6Ω
R130	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330Ω
R131	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47Ω
R133	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R134	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220Ω
R136	ERJ6GEYJ392	S.M.CARB	0.1W	5%	3K9Ω
R137	ERJ6GEYJ392	S.M.CARB	0.1W	5%	3K9Ω
R138	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330Ω
R140	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KΩ
R141	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3Ω
R142	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2Ω
R145	ERJ6GEYJ561	S.M.CARB	0.1W	5%	560Ω
R150	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6Ω
R151	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6Ω
R170	ERD2FCG560	CARBON	2W	5%	56Ω
R173	ERG1ANJ180	METAL	1W	5%	18Ω
R177	ERG2ANJP151	METAL	2W	5%	150Ω
R178	ERG2ANJ330	METAL	2W	5%	33Ω
R180	ERJ6GMYJ684	S.M.CARB	0.1W	5%	680KΩ
R181	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220Ω
R201	ERD25TJ102	CARBON	0.25W	5%	1KΩ
R206	ERD25TJ103	CARBON	0.25W	5%	10KΩ
R209	ERD25TJ104	CARBON	0.25W	5%	100KΩ
R210	ERD25TJ123	CARBON	0.25W	5%	12KΩ
R214	ERD25TJ102	CARBON	0.25W	5%	1KΩ
R252	ERD25TJ333	CARBON	0.25W	5%	33KΩ
R253	ERD25TJ563	CARBON	0.25W	5%	56KΩ
R254	ERD25TJ104	CARBON	0.25W	5%	100KΩ
R255	ERD25TJ473	CARBON	0.25W	5%	47KΩ
R256	ERD25TJ103	CARBON	0.25W	5%	10KΩ
R257	ERD25TJ270	CARBON	0.25W	5%	27Ω
R258	ERD25TJ270	CARBON	0.25W	5%	27Ω
R260	ERD25TJ101	CARBON	0.25W	5%	100Ω
R262	ERD25TJ152	CARBON	0.25W	5%	1K5Ω
R265	ERD25TJ101	CARBON	0.25W	5%	100Ω
R279	ERD25TJ333	CARBON	0.25W	5%	33KΩ
R282	ERD25TJ152	CARBON	0.25W	5%	1K5Ω
R300	ERJ6GMYJ821	S.M.CARB	0.1W	5%	820Ω
R303	ERJ6GMYJ152	S.M.CARB	0.1W	5%	1K5Ω
R306	ERJ6GMYJ100	S.M.CARB	0.1W	5%	10Ω
R307	ERJ6GMYJ152	S.M.CARB	0.1W	5%	1K5Ω
R308	ERJ6GMYJ102	S.M.CARB	0.1W	5%	1KΩ
R309	ERJ6GMYJ391	S.M.CARB	0.1W	5%	390Ω
R310	ERJ6GMYJ152	S.M.CARB	0.1W	5%	1K5Ω
R312	ERJ6GMYJ823	S.M.CARB	0.1W	5%	82KΩ
R313	ERJ6GMYJ563	S.M.CARB	0.1W	5%	56KΩ
R314	ERJ6GMYJ223	S.M.CARB	0.1W	5%	22KΩ
R316	ERJ6GMYJ911	RESITOR			
R317	EVNDCAA03B54	CONTROL			50KΩ
R318	ERJ6GMYJ101	S.M.CARB	0.1W	5%	100Ω
R319	ERJ6GMYJ563	S.M.CARB	0.1W	5%	56KΩ
R321	EVNDCAA03B14	CONTROL			10KΩ
R322	ERJ6GMYJ333	S.M.CARB	0.1W	5%	33KΩ
R323	ERJ6GMYJ183	S.M.CARB	0.1W	5%	18KΩ
R324	ERJ6GMYJ223	S.M.CARB	0.1W	5%	22KΩ
R326	ERJ6GMYJ153	S.M.CARB	0.1W	5%	15KΩ
R329	ERJ6GMYJ153	S.M.CARB	0.1W	5%	15KΩ
R331	ERJ6GMYJ332	S.M.CARB	0.1W	5%	3K3Ω
R333	ERJ6GMYJ101	S.M.CARB	0.1W	5%	100Ω
R334	ERJ6GMYJ274	S.M. CARB	0.1W	5%	270KΩ
R335	ERDS1TJ471	CARBON	0.5W	5%	470Ω

Ref No.	Part No.	Description				
R336	ERJ6GMYJ223	S.M.CARB	0.1W	5%	22KΩ	
R337	ERJ6GMYJ273	S.M.CARB	0.1W	5%	27KΩ	
R338	ERJ6GMYJ102	S.M.CARB	0.1W	5%	1KΩ	
R340	ERJ6GMYJ101	S.M.CARB	0.1W	5%	100Ω	
R341	ERJ6GMYJ562	S.M.CARB	0.1W	5%	5K6Ω	
R342	ERJ6GMYJ184	S.M.CARB	0.1W	5%	180KΩ	
R343	ERJ6GMYJ222	S.M.CARB	0.1W	5%	2K2Ω	
R344	ERJ6GMYJ222	S.M.CARB	0.1W	5%	2K2Ω	
R347	ERJ6GMYJ563	S.M.CARB	0.1W	5%	56KΩ	
R348	ERJ6GMYJ222	S.M.CARB	0.1W	5%	2K2Ω	
R351	ERG2ANJ103	METAL	2W	5%	10KΩ	
R352	ERG2ANJ103	METAL	2W	5%	10KΩ	
R353	ERG2ANJ103	METAL	2W	5%	10KΩ	
R354	ERD25TJ181	CARBON	0.25W	5%	180Ω	
R355	ERD25TJ271	CARBON	0.25W	5%	270Ω	
R356	ERD25TJ181	CARBON	0.25W	5%	180Ω	
R357	EVN65UA00B22	CONTROL			200Ω	
R358	EVN65UA00B22	CONTROL			200Ω	
R359	ERD25TJ471	CARBON	0.25W	5%	470Ω	
R360	ERD25TJ471	CARBON	0.25W	5%	470Ω	
R361	ERD25TJ471	CARBON	0.25W	5%	470Ω	
R362	EVN65UA00B53	CONTROL			5KΩ	
R364	EVN65UA00B53	CONTROL			5KΩ	
R365	ERDS1FJ152	CARBON	0.5W	5%	1K5Ω	⚠
R366	ERDS1TJ152	CARBON	0.5W	5%	1K5Ω	
R367	ERDS1TJ152	CARBON	0.5W	5%	1K5Ω	
R369	EVN65UA00B53	CONTROL			5KΩ	
R374	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R376	ERD25TJ152	CARBON	0.25W	5%	1K5Ω	
R377	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R378	ERD25TJ274	CARBON	0.25W	5%	270KΩ	
R379	ERD25TJ183	CARBON	0.25W	5%	18KΩ	
R380	ERD25TJ684	CARBON	0.25W	5%	680KΩ	
R402	ERD25TJ102	CARBON	0.25W	5%	1KΩ	
R403	ERD25TJ184	CARBON	0.25W	5%	180KΩ	
R404	ERD25TJ274	CARBON	0.25W	5%	270KΩ	
R405	EVNDCAA03B35	CONTROL			300KΩ	
R406	ERD25TJ105	CARBON	0.25W	5%	1MΩ	
R407	ERD25TJ222	CARBON	0.25W	5%	2K2Ω	
R408	ERD25TJ102	CARBON	0.25W	5%	1KΩ	
R409	ERD25TJ124	CARBON	0.25W	5%	120KΩ	
R410	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R411	ERD25TJ334	CARBON	0.25W	5%	330KΩ	
R413	ERD25TJ823	CARBON	0.25W	5%	82KΩ	
R414	ERD25TJ754	CARBON	0.25W	5%	750KΩ	
R451	TSF19801	FS LINK				⚠
R452	ERD25TJ432	CARBON	0.25W	5%	4K3Ω	
R453	ERD25TJ332	CARBON	0.25W	5%	3K3Ω	
R455	ERD25TJ1R0	CARBON	0.25W	5%	1Ω	
R456	ERD25TJ1R5	CARBON	0.25W	5%	1R5Ω	
R457	ERD25TJ562	CARBON	0.25W	5%	5K6Ω	
R458	ERD25TJ682	CARBON	0.25W	5%	6K8Ω	
R459	ERD25TJ363	CARBON	0.25W	5%	36KΩ	
R460	ERD25TJ473	CARBON	0.25W	5%	47KΩ	
R461	ERD25TJ1R0	CARBON	0.25W	5%	1Ω	
R462	ERDS1TJ1R8	CARBON	0.5W	5%	1R8Ω	
R466	ERDS1TJ152	CARBON	0.5W	5%	1K5Ω	
R468	ERDS1TJ681	CARBON	0.5W	5%	680Ω	
R469	ERDS1TJ391	CARBON	0.5W	5%	390Ω	
R470	ERG2SJ391	METAL	2W	5%	390Ω	
R472	ERD25TJ392	CARBON	0.25W	5%	3K9Ω	
R473	ERD25TJ432	CARBON	0.25W	5%	4K3Ω	
R476	ERG2ANJ331	METAL	2W	5%	330Ω	
R500	ERD25TJ104	CARBON	0.25W	5%	100KΩ	
R501	ERD25TJ102	CARBON	0.25W	5%	1KΩ	
R502	EVND4AA00B14	CONTROL			10KΩ	
R503	ERO25CKF3002	METAL	0.25W	1%	30KΩ	⚠
R504	ERD25TJ562	CARBON	0.25W	5%	5K6Ω	
R505	ERD25TJ563	CARBON	0.25W	5%	56KΩ	
R506	ERD25TJ682	CARBON	0.25W	5%	6K8Ω	
R507	EVNDCAA03B54	CONTROL			50KΩ	
R508	ERD25TJ273	CARBON	0.25W	5%	27KΩ	
R510	ERD25TJ222	CARBON	0.25W	5%	2K2Ω	
R511	ERD25TJ682	CARBON	0.25W	5%	6K8Ω	
R512	ERD25TJ820	CARBON	0.25W	5%	82Ω	
R513	ERD25TJ333	CARBON	0.25W	5%	33KΩ	
R514	ERD25TJ392	CARBON	0.25W	5%	3K9Ω	
R515	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R516	ERD25TJ562	CARBON	0.25W	5%	5K6Ω	
R518	ERD25TJ391	CARBON	0.25W	5%	390Ω	
R519	ERD25TJ562	CARBON	0.25W	5%	5K6Ω	
R520	ERD25TJ153	CARBON	0.25W	5%	15KΩ	
R521	ERD25TJ102	CARBON	0.25W	5%	1KΩ	
R522	ERD25TJ473	CARBON	0.25W	5%	47KΩ	
R523	ERD25TJ102	CARBON	0.25W	5%	1KΩ	
R524	ERD25TJ683	CARBON	0.25W	5%	68KΩ	
R527	ERO25CKF8201	METAL	0.25W	1%	8K2Ω	⚠
R528	ERO25CKF3901	METAL	0.25W	1%	3K9Ω	⚠
R529	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R531	ERG2ANJ391	METAL	2W	5%	390Ω	
R532	ERD25TJ273	CARBON	0.25W	5%	27KΩ	
R533	ERD25TJ471	CARBON	0.25W	5%	470Ω	
R534	ERD25TJ682	CARBON	0.25W	5%	6K8Ω	
R535	ERD25TJ124	CARBON	0.25W	5%	120KΩ	
R536	ERD25TJ393	CARBON	0.25W	5%	39KΩ	
R537	ERD25TJ105	CARBON	0.25W	5%	1MΩ	
R538	ERD25TJ394	CARBON	0.25W	5%	390KΩ	
R539	ERQ14AJW100	METAL	0.25W	5%	10Ω	⚠
R542	ERD25TJ474	CARBON	0.25W	5%	470KΩ	
R543	ERD25TJ333	CARBON	0.25W	5%	33KΩ	
R544	ERQ14AJ101	METAL	0.25W	5%	100Ω	⚠
R545	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R556	ERQ12HJ1R2	METAL	0.5W	5%	1R2Ω	⚠
R557	ERQ12HJ1R2	METAL	0.5W	5%	1R2Ω	⚠
R561	ERD25TJ153	CARBON	0.25W	5%	15KΩ	
R562	ERDS1TJ124	CARBON	0.5W	5%	120KΩ	
R565	ERG2ANJ102	METAL	2W	5%	1KΩ	
R568	ERD25TJ274	CARBON	0.25W	5%	270KΩ	
R571	ERQ12HJ1R5	FUSIBLE	0.5W	5%	1R5Ω	⚠
R572	ERD25TJ473	CARBON	0.25W	5%	47KΩ	
R600	ERQ14AJW3R3	FUSABLE	0.25W	5%	3R3Ω	⚠
R601	ERJ6GMYJ222	S.M.CARB	0.1W	5%	2K2Ω	
R604	ERJ6GMYJ183	S.M.CARB	0.1W	5%	18KΩ	
R606	EVNDCAA03B54	CONTROL			50KΩ	
R608	ERJ6GMYJ221	S.M.CARB	0.1W	5%	220Ω	
R609	ERJ6GMYJ822	S.M.CARB	0.1W	5%	8K2Ω	
R615	ERJ6GMYJ103	S.M.CARB	0.1W	5%	10KΩ	
R616	ERJ6GMYJ101	S.M.CARB	0.1W	5%	100Ω	
R617	ERJ6GMYJ101	S.M.CARB	0.1W	5%	100Ω	
R618	ERJ6GMYJ101	S.M.CARB	0.1W	5%	100Ω	
R622	ERJ6GMYJ471	S.M.CARB	0.1W	5%	470Ω	
R623	ERJ6GMYJ100	S.M.CARB	0.1W	5%	10Ω	
R624	ERJ6GMYJ100	S.M.CARB	0.1W	5%	10Ω	
R625	ERJ6GMYJ101	S.M.CARB	0.1W	5%	100Ω	
R626	ERJ6GMYJ273	S.M.CARB	0.1W	5%	27KΩ	
R627	ERJ6GMYJ473	S.M.CARB	0.1W	5%	47KΩ	
R630	ERJ6GMYJ681	S.M.CARB	0.1W	5%	680Ω	
R632	ERJ6GMYJ333	S.M.CARB	0.1W	5%	33KΩ	
R634	ERJ6GMYJ512	S.M.CARB	0.1W	5%	5K1Ω	
R635	ERJ6GMYJ103	S.M.CARB	0.1W	5%	10KΩ	
R643	ERJ6GMYJ103	S.M.CARB	0.1W	5%	10KΩ	
R644	ERJ6GMYJ101	S.M.CARB	0.1W	5%	100Ω	
R646	ERJ6GMYJ102	S.M.CARB	0.1W	5%	1KΩ	
R653	ERJ6GMYJ222	S.M.CARB	0.1W	5%	2K2Ω	
R654	ERJ6GMYJ103	S.M.CARB	0.1W	5%	10KΩ	
R656	ERJ6GMYJ101	S.M.CARB	0.1W	5%	100Ω	
R665	ERJ6GMYJ103	S.M.CARB	0.1W	5%	10KΩ	
R667	ERJ6GMYJ822	S.M.CARB	0.1W	5%	8K2Ω	
R668	ERJ6GMYJ272	S.M.CARB	0.1W	5%	2K7Ω	
R669	ERJ6GMYJ153	S.M.CARB	0.1W	5%	15KΩ	
R672	ERJ6GMYJ822	S.M.CARB	0.1W	5%	8K2Ω	

Ref No.	Part No.	Description				
R675	ERJ6GMYJ472	S.M.CARB	0.1W	5%	4K7Ω	
R676	ERJ6GMYJ333	S.M.CARB	0.1W	5%	33KΩ	
R677	ERJ6GMYJ471	S.M.CARB	0.1W	5%	470Ω	
R678	ERJ6GMYJ331	S.M.CARB	0.1W	5%	330Ω	
R679	ERJ6GMYJ471	S.M.CARB	0.1W	5%	470Ω	
R682	ERJ6GMYJ101	S.M.CARB	0.1W	5%	100Ω	
R683	ERJ6GMYJ822	S.M.CARB	0.1W	5%	8K2Ω	
R684	ERJ6GMYJ821	S.M.CARB	0.1W	5%	820Ω	
R686	ERJ6GMYJ823	S.M.CARB	0.1W	5%	82KΩ	
R687	ERJ6GMYJ222	S.M.CARB	0.1W	5%	2K2Ω	
R688	ERJ6GMYJ821	S.M.CARB	0.1W	5%	820Ω	
R689	ERJ6GMYJ331	S.M.CARB	0.1W	5%	330Ω	
R690	ERJ6GMYJ223	S.M.CARB	0.1W	5%	22KΩ	
R691	ERJ6GMYJ101	S.M.CARB	0.1W	5%	100Ω	
R692	ERJ6GMYJ392	S.M.CARB	0.1W	5%	3K9Ω	
R693	ERJ6GMYJ102	S.M.CARB	0.1W	5%	1KΩ	
R694	ERJ6GMYJ182	S.M.CARB	0.1W	5%	1K8Ω	
R695	ERJ6GMYJ153	S.M.CARB	0.1W	5%	15KΩ	
R696	ERJ6GMYJ102	S.M.CARB	0.1W	5%	1KΩ	
R697	ERJ6GMYJ151	S.M.CARB	0.1W	5%	150Ω	
R701	ERD25TJ100	CARBON	0.25W	5%	10Ω	
R702	ERD25TJ150	CARBON	0.25W	5%	15Ω	
R703	ERD25TJ681	CARBON	0.25W	5%	680Ω	
R704	EVNDCAA03B15	CONTROL			100KΩ	
R705	ERD25TJ472	CARBON	0.25W	5%	4K7Ω	
R706	ERQ14AJ100	METAL	0.25W	5%	10Ω	⚠
R707	ERD25TJ242	CARBON	0.25W	5%	2K4Ω	
R708	EVNDCAA03B13	CONTROL			1KΩ	
R709	ERD25TJ153	CARBON	0.25W	5%	15KΩ	
R710	ERD25TJ682	CARBON	0.25W	5%	6K8Ω	
R711	ERD25TJ393	CARBON	0.25W	5%	39KΩ	
R712	ERD25TJ153	CARBON	0.25W	5%	15KΩ	
R713	ERD25TJ203	CARBON	0.25W	5%	20KΩ	
R714	EVND4AA00B33	CONTROL			3KΩ	
R715	ERD25TJ153	CARBON	0.25W	5%	15KΩ	
R716	ERD25TJ682	CARBON	0.25W	5%	6K8Ω	
R751	ERQ12HJ330	METAL	0.5W	5%	33Ω	⚠
R811	ERC12ZGK335D	SOLID	0.5W	10%	3M3Ω	
R821	ERF5ZK2R7	WOUND	5W	20%	2.7Ω	⚠
R822	ERG2ANJ104	METAL	2W	5%	100KΩ	
R823	ERG2ANJ104	METAL	2W	5%	100KΩ	
R824	ERD25TJ222	CARBON	0.25W	5%	2K2Ω	
R825	ERW12PKR27	WOUND	0.5W	10%	0R27Ω	⚠
R826	ERD25TJ823	CARBON	0.25W	5%	82KΩ	
R827	ERQ12HJ5R6	METAL	0.5W	5%	5R6Ω	⚠
R828	ERG2ANJ683	METAL	2W	5%	68KΩ	
R830	ERF2AJ560	WOUND	2W	5%	56Ω	⚠
R831	ERDS1TJ274	CARBON	0.5W	5%	270KΩ	
R832	ERDS1TJ274	CARBON	0.5W	5%	270KΩ	
R833	ERX1SJ6R8	METAL	0.5W	5%	6R8Ω	
R834	ERD75TAJ825	CARBON	0.75W	5%	8M2Ω	⚠
R852	ERQ12HKR27	RESITOR				⚠
R855	ERG2ANJ330	METAL	2W	5%	33Ω	
R856	ERF2AK1R5	WOUND	3W	20%	1R5Ω	⚠
R873	ERD25TJ123	CARBON	0.25W	5%	12KΩ	
R880	ERF3AKR56	WOUND	3W	20%	0R56Ω	⚠
R882	ERD25TJ272	CARBON	0.25W	5%	2K7Ω	
R883	ERD25TJ471	CARBON	0.25W	5%	470Ω	
R884	ERD25TJ223	CARBON	0.25W	5%	22KΩ	
R890	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R891	ERD25TJ471	CARBON	0.25W	5%	470Ω	
R1105	ERO25CKF9531	METAL	0.25W	1%	9K53Ω	⚠
R1109	ERO25CKF7871	METAL	0.25W	1%	7K87Ω	⚠
R1110	ERO25CKF4871	METAL	0.25W	1%	4K87Ω	⚠
R1111	ERO25CKF9531	METAL	0.25W	1%	9K53Ω	⚠
R1112	ERO25CKF2371	METAL	0.25W	1%	2K37Ω	⚠
R1113	ERO25CKF2371	METAL	0.25W	1%	2K37Ω	⚠
R1114	ERO25CKF3161	METAL	0.25W	1%	3K16Ω	⚠
R1115	ERO25CKF4871	METAL	0.25W	1%	4K87Ω	⚠
R1117	ERD25TJ103	CARBON	0.25W	5%	10KΩ	

Ref No.	Part No.	Description				
R1118	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R1119	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R1122	ERD25TJ153	CARBON	0.25W	5%	15KΩ	
R1123	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R1124	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R1127	ERD25TJ682	CARBON	0.25W	5%	6K8Ω	
R1130	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R1131	ERD25TJ472	CARBON	0.25W	5%	4K7Ω	
R1132	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R1135	ERD25TJ102	CARBON	0.25W	5%	1KΩ	
R1147	ERO25CKF2152	METAL	0.25W	1%	21K5Ω	⚠
R1148	ERO25CKF2152	METAL	0.25W	1%	21K5Ω	⚠
R1191	ERD25TJ271	CARBON	0.25W	5%	270Ω	
R1201	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R1204	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1205	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1206	ERD25TJ102	CARBON	0.25W	5%	1KΩ	
R1207	ERD25TJ682	CARBON	0.25W	5%	6K8Ω	
R1210	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1211	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R1212	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R1213	ERD25TJ562	CARBON	0.25W	5%	5K6Ω	
R1214	ERD25TJ332	CARBON	0.25W	5%	3K3Ω	
R1215	ERG1SJ221	METAL	1W	5%	220Ω	
R1217	ERD25TJ823	CARBON	0.25W	5%	82KΩ	
R1218	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1219	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1221	ERD25TJ562	CARBON	0.25W	5%	5K6Ω	
R1222	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1224	ERD25TJ471	CARBON	0.25W	5%	470Ω	
R1225	ERD25TJ472	CARBON	0.25W	5%	4K7Ω	
R1226	ERDS1TJ154	CARBON	0.5W	5%	150K	
R1230	ERD25TJ562	CARBON	0.25W	5%	5K6Ω	
R1232	ERD25TJ332	CARBON	0.25W	5%	3K3Ω	
R1233	ERD25TJ332	CARBON	0.25W	5%	3K3Ω	
R1235	ERD25TJ182	CARBON	0.25W	5%	1K8Ω	
R1236	ERD25TJ472	CARBON	0.25W	5%	4K7Ω	
R1237	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R1238	ERD25TJ223	CARBON	0.25W	5%	22KΩ	
R1239	ERD25TJ272	CARBON	0.25W	5%	2K7Ω	
R1241	ERD25TJ102	CARBON	0.25W	5%	1KΩ	
R1243	ERD25TJ153	CARBON	0.25W	5%	15KΩ	
R1246	ERD25TJ562	CARBON	0.25W	5%	5K6Ω	
R1248	ERD25TJ102	CARBON	0.25W	5%	1KΩ	
R1250	ERD25TJ102	CARBON	0.25W	5%	1KΩ	
R1254	ERD25TJ102	CARBON	0.25W	5%	1KΩ	
R1255	ERD25TJ222	CARBON	0.25W	5%	2K2Ω	
R1256	ERD25TJ102	CARBON	0.25W	5%	1KΩ	
R1259	ERD25TJ123	CARBON	0.25W	5%	12KΩ	
R1260	ERD25TJ123	CARBON	0.25W	5%	12KΩ	
R1261	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R1262	ERD25TJ222	CARBON	0.25W	5%	2K2Ω	
R1263	ERD25TJ223	CARBON	0.25W	5%	22KΩ	
R1264	ERD25TJ103	CARBON	0.25W	5%	10KΩ	
R1265	ERD25TJ562	CARBON	0.25W	5%	5K6Ω	
R1283	ERX1SJ3R3	METAL	1W	5%	3R3Ω	
R1301	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1302	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1303	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1304	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1305	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1309	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1310	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1311	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1312	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1313	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1314	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1315	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1318	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1319	ERD25TJ101	CARBON	0.25W	5%	100Ω	
R1320	ERD25TJ101	CARBON	0.25W	5%	100Ω	

Ref No.	Part No.	Description
R1324	ERD25TJ221	CARBON 0.25W 5% 220Ω
R1325	ERD25TJ101	CARBON 0.25W 5% 100Ω
R1326	ERD25TJ101	CARBON 0.25W 5% 100Ω
R1327	ERD25TJ101	CARBON 0.25W 5% 100Ω
R1328	ERD25TJ101	CARBON 0.25W 5% 100Ω
R1329	ERD25TJ101	CARBON 0.25W 5% 100Ω
R1331	ERD25TJ562	CARBON 0.25W 5% 5K6Ω
R1332	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R1333	ERD25TJ101	CARBON 0.25W 5% 100Ω
R1334	ERD25TJ101	CARBON 0.25W 5% 100Ω
R1336	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R1337	ERD25TJ123	CARBON 0.25W 5% 12KΩ
R1338	ERD25TJ224	CARBON 0.25W 5% 220KΩ
R1339	ERD25TJ101	CARBON 0.25W 5% 100Ω
R1342	ERD25TJ123	CARBON 0.25W 5% 12KΩ
R1345	ERD25TJ472	CARBON 0.25W 5% 4K7Ω
R1347	ERD25TJ472	CARBON 0.25W 5% 4K7Ω
R2004	ERJ6GEYJ392	S.M.CARB 0.1W 5% 3K9Ω
R2005	ERJ6GEYJ392	S.M.CARB 0.1W 5% 3K9Ω
R2006	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R2007	ERJ6GMY0R00	S.M. WIRE LINK
R2008	ERJ6GMY0R00	S.M. WIRE LINK
R2009	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R2010	ERJ6GEYJ431	S.M.CARB 0.1W 5% 430Ω
R2011	ERJ6GEYJ241	S.M.CARB 0.1W 5% 240Ω
R2012	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R2013	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R2014	ERJ6GMYJ823	S.M.CARB 0.1W 5% 82KΩ
R2015	ERJ6GMY0R00	S.M. WIRE LINK
R2016	ERJ6GMY0R00	S.M. WIRE LINK
R2019	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R2020	ERJ6GEYJ150	S.M.CARB 0.1W 5% 15Ω
R2021	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R2022	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R2023	ERJ6GEYJ392	S.M.CARB 0.1W 5% 3K9Ω
R2025	ERJ6GEYJ224	S.M.CARB 0.1W 5% 220KΩ
R2030	ERJ6GMY0R00	S.M. WIRE LINK
R2032	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R2039	ERJ6GEYJ182	S.M.CARB 0.1W 5% 1K8Ω
R2042	ERJ6GEYJ513	S.M.CARB 0.1W 5% 51KΩ
R2045	ERJ6GEYJ513	S.M.CARB 0.1W 5% 51KΩ
R2047	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R2049	ERJ6GMY0R00	S.M. WIRE LINK
R2052	ERJ6GEYJ105	S.M.CARB 0.1W 5% 1MΩ
R2053	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R2054	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R2055	ERJ6GEYJ273	S.M.CARB 0.1W 5% 27KΩ
R2056	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R2057	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2058	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R2060	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2062	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2064	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R2066	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R2067	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R2070	ERJ6GEYJ563	S.M.CARB 0.1W 5% 56KΩ
R2071	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2072	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2073	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2074	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6Ω
R2075	ERJ6GMY0R00	S.M. WIRE LINK
R2076	ERJ6GEYJ394	S.M.CARB 0.1W 5% 390KΩ
R2077	ERJ6GEYJ563	S.M.CARB 0.1W 5% 56KΩ
R2078	ERJ6GEYJ394	S.M.CARB 0.1W 5% 390KΩ
R2079	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2080	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2081	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2082	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6Ω
R2084	ERJ6GMY0R00	S.M. WIRE LINK
R2085	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R2086	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω

Ref No.	Part No.	Description
R2102	ERJ6GEYJ272	S.M.CARB 0.1W 5% 2K7Ω
R2103	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2109	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2110	ERD2FCG330	CARBON 2W 2% 33Ω
R2112	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R2114	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330Ω
R2115	ERJ6GEYJ272	S.M.CARB 0.1W 5% 2K7Ω
R2116	ERJ6GEYJ680	S.M.CARB 0.1W 5% 68Ω
R2120	ERD25FYJ201	CARBON 0.25W 5% 200Ω ⚠
R2126	ERJ6GMY0R00	S.M. WIRE LINK
R2133	ERJ6GMYJ271	S.M.CARB 0.1W 5% 270Ω
R2134	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2135	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2136	ERQ14AJ330	METAL 0.25W 5% 33Ω ⚠
R2138	ERJ6GEYK275	S.M.CARB 0.1W 10% 2M7Ω
R2148	ERJ6GEYJ221	S.M.CARB 0.1W 5% 220Ω
R2149	ERJ6GEYJ121	S.M.CARB 0.1W 5% 120Ω
R2151	ERJ6GEYJ121	S.M.CARB 0.1W 5% 120Ω
R2201	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6Ω
R2202	ERJ6GEYJ333	S.M.CARB 0.1W 5% 33KΩ
R2203	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R2204	EVND4AA00B54	CONTROL 50KΩ
R2205	ERJ6GMY0R00	S.M. WIRE LINK
R2207	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R2208	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R2210	ERJ6GMY0R00	S.M. WIRE LINK
R2211	ERJ6GEYJ474	S.M.CARB 0.1W 5% 470KΩ
R2219	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2220	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2246	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6Ω
R2247	ERJ6GEYJ273	S.M.CARB 0.1W 5% 27KΩ
R2248	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2249	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2250	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R2251	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R2253	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2254	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2255	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R2256	ERJ6GMYJ271	S.M.CARB 0.1W 5% 270Ω
R2257	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2258	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2259	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2410	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R2411	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R2415	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R2417	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R2418	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R2420	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R2421	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R2422	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R2426	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R2429	ERD25TJ273	CARBON 0.25W 5% 27KΩ
R2462	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R2464	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R2651	ERG1ANJ221	METAL 1W 5% 220Ω
R2652	ERG1ANJ221	METAL 1W 5% 220Ω
R2659	ERD25TJ2R2	CARBON 0.25W 5% 2R2Ω
R2660	ERD25TJ2R2	CARBON 0.25W 5% 2R2Ω
R2666	ERDS1TJ121	CARBON 0.5W 5% 120Ω
R2667	ERDS1TJ121	CARBON 0.5W 5% 120Ω
R3001	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R3002	ERJ6GMY0R00	S.M. WIRE LINK
R3003	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3004	ERJ6GEYJ220	S.M.CARB 0.1W 5% 22Ω
R3005	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3007	ERJ6GEYJ563	S.M.CARB 0.1W 5% 56KΩ
R3008	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3009	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3010	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R3011	ERJ6GMYJ750	S.M.CARB 0.1W 5% 75Ω

Ref No.	Part No.	Description
R3012	ERJ6GEYJ221	S.M.CARB 0.1W 5% 220Ω
R3013	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R3015	ERJ6GEYJ511	S.M.CARB 0.1W 5% 510Ω
R3018	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R3019	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R3020	ERJ6GMYJ750	S.M.CARB 0.1W 5% 75Ω
R3021	ERQ14AJW100	METAL 0.25W 5% 10Ω ⚠
R3022	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3023	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3024	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3025	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3026	ERJ6GEYJ563	S.M.CARB 0.1W 5% 56KΩ
R3027	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R3028	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3029	ERJ6GEYJ333	S.M.CARB 0.1W 5% 33KΩ
R3030	ERJ6GEYJ680	S.M.CARB 0.1W 5% 68Ω
R3031	ERDS1FYJ101	CARBON 0.5W 5% 100Ω ⚠
R3032	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3034	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3035	ERJ6GEYJ561	S.M.CARB 0.1W 5% 560Ω
R3036	ERJ6GEYJ561	S.M.CARB 0.1W 5% 560Ω
R3037	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3039	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3040	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3041	ERJ6GEYJ221	S.M.CARB 0.1W 5% 220Ω
R3042	ERJ6GMYJ682	S.M.CARB 0.1W 5% 6K8Ω
R3043	ERJ6GMYJ682	S.M.CARB 0.1W 5% 6K8Ω
R3044	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R3045	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R3046	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R3047	ERJ6GEYJ183	S.M.CARB 0.1W 5% 18KΩ
R3048	ERJ6GEYJ681	S.M.CARB 0.1W 5% 680Ω
R3049	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6Ω
R3050	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6Ω
R3051	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R3052	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R3053	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R3054	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3055	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3056	ERJ6GEYJ273	S.M.CARB 0.1W 5% 27KΩ
R3057	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3058	ERJ6GEYJ273	S.M.CARB 0.1W 5% 27KΩ
R3059	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R3060	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R3061	ERJ6GMYJ750	S.M.CARB 0.1W 5% 75Ω
R3062	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3063	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3064	ERJ6GEYJ221	S.M.CARB 0.1W 5% 220Ω
R3065	ERJ6GEYJ221	S.M.CARB 0.1W 5% 220Ω
R3066	ERD25TJ221	CARBON 0.25W 5% 220Ω
R3067	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R3068	ERD25TJ221	CARBON 0.25W 5% 220Ω
R3069	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R3070	ERJ6GMYJ750	S.M.CARB 0.1W 5% 75Ω
R3072	ERJ6GEYJ221	S.M.CARB 0.1W 5% 220Ω
R3073	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R3074	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R3075	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3077	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3078	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3079	ERJ6GEYJ333	S.M.CARB 0.1W 5% 33KΩ
R3080	ERJ6GEYJ333	S.M.CARB 0.1W 5% 33KΩ
R3081	ERJ6GEYJ333	S.M.CARB 0.1W 5% 33KΩ
R3082	ERJ6GEYJ333	S.M.CARB 0.1W 5% 33KΩ
R3085	ERJ6GEYJ152	S.M.CARB 0.1W 5% 1K5Ω
R3086	ERJ6GEYJ152	S.M.CARB 0.1W 5% 1K5Ω
R3089	ERJ6GMY0R00	S.M. WIRE LINK
R3090	ERJ6GEYJ122	S.M.CARB 0.1W 5% 1K2Ω
R3091	ERJ6GEYJ221	S.M.CARB 0.1W 5% 220Ω
R3093	ERJ6GEYJ561	S.M.CARB 0.1W 5% 560Ω
R3094	ERJ6GEYJ561	S.M.CARB 0.1W 5% 560Ω

Ref No.	Part No.	Description
R3096	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3097	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3099	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3159	ERD25TJ273	CARBON 0.25W 5% 27KΩ
R3160	ERD25TJ392	CARBON 0.25W 5% 3K9Ω
R3161	ERD25TJ104	CARBON 0.25W 5% 100KΩ
R3162	ERD25TJ221	CARBON 0.25W 5% 220Ω
R3163	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R3164	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R3165	ERD25TJ221	CARBON 0.25W 5% 220Ω
R3166	ERD25TJ104	CARBON 0.25W 5% 100KΩ
R3167	ERD25TJ221	CARBON 0.25W 5% 220Ω
R3168	ERD25TJ750	CARBON 0.25W 5% 75Ω
R3169	ERD25TJ473	CARBON 0.25W 5% 47KΩ
R3170	ERD25TJ563	CARBON 0.25W 5% 56KΩ
R3171	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3172	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3173	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3175	ERD25TJ101	CARBON 0.25W 5% 100Ω
R3176	ERD25TJ473	CARBON 0.25W 5% 47KΩ
R3177	ERD25TJ221	CARBON 0.25W 5% 220Ω
R3178	ERD25TJ101	CARBON 0.25W 5% 100Ω
R3179	ERD25TJ750	CARBON 0.25W 5% 75Ω
R3180	ERD25TJ750	CARBON 0.25W 5% 75Ω
R3181	ERD25TJ750	CARBON 0.25W 5% 75Ω
R3182	ERD25TJ680	CARBON 0.25W 5% 68Ω
R3183	ERD25TJ332	CARBON 0.25W 5% 3K3Ω
R3184	ERD25TJ682	CARBON 0.25W 5% 6K8Ω
R3185	ERD25TJ221	CARBON 0.25W 5% 220Ω
R3187	ERD25TJ682	CARBON 0.25W 5% 6K8Ω
R3188	ERDS1FYJ101	CARBON 0.5W 5% 100Ω ⚠
R3189	ERD25TJ392	CARBON 0.25W 5% 3K9Ω
R3190	ERD25TJ392	CARBON 0.25W 5% 3K9Ω
R3191	ERD25TJ333	CARBON 0.25W 5% 33KΩ
R3192	ERD25TJ563	CARBON 0.25W 5% 56KΩ
R3193	ERD25TJ392	CARBON 0.25W 5% 3K9Ω
R3195	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R3196	ERD25TJ750	CARBON 0.25W 5% 75Ω
R3197	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R3199	ERD25TJ392	CARBON 0.25W 5% 3K9Ω
R3301	ERD25TJ100	CARBON 0.25W 5% 10Ω
R3302	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3303	ERO25CKF1502	METAL 0.25W 1% 15KΩ ⚠
R3304	ERO25CKF3161	METAL 0.25W 1% 3K16Ω ⚠
R3305	ERD25TJ152	CARBON 0.25W 5% 1K5Ω
R3306	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3307	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3308	ERD25TJ222	CARBON 0.25W 5% 2K2Ω
R3309	ERO25CKF8201	METAL 0.25W 1% 8K2Ω ⚠
R3310	ERO25CKF2801	METAL 0.25W 1% 2K8Ω ⚠
R3312	ERD25TJ101	CARBON 0.25W 5% 100Ω
R3313	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3314	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3315	ERD25TJ101	CARBON 0.25W 5% 100Ω
R3316	ERD25TJ472	CARBON 0.25W 5% 4K7Ω
R3317	ERD25TJ753	CARBON 0.25W 5% 75KΩ
R3318	ERD25TJ101	CARBON 0.25W 5% 100Ω
R3319	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R3320	ERD25TJ100	CARBON 0.25W 5% 10Ω
R3322	ERD25TJ682	CARBON 0.25W 5% 6K8Ω
R3323	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R3324	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R3325	ERD25TJ562	CARBON 0.25W 5% 5K6Ω
R3326	ERD25TJ562	CARBON 0.25W 5% 5K6Ω
R3327	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R3328	ERD25TJ564	CARBON 0.25W 5% 560KΩ
R3329	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R3330	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3331	ERD2FCG100	CARB 2W 5% 10Ω
R3332	ERD25TJ561	CARBON 0.25W 5% 560Ω

Ref No.	Part No.	Description
R3333	ERD25TJ561	CARBON 0.25W 5% 560Ω
R3334	ERD25TJ561	CARBON 0.25W 5% 560Ω
R3338	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3339	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3340	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3342	ERD25TJ100	CARBON 0.25W 5% 10Ω
R3343	ERD25TJ100	CARBON 0.25W 5% 10Ω
R3344	ERD25TJ100	CARBON 0.25W 5% 10Ω
R3345	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3346	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3347	ERD25TJ102	CARBON 0.25W 5% 1KΩ
R3348	ERD25TJ100	CARBON 0.25W 5% 10Ω
R3349	ERD25TJ100	CARBON 0.25W 5% 10Ω
R3350	ERD25TJ100	CARBON 0.25W 5% 10Ω
R3351	ERD25TJ221	CARBON 0.25W 5% 220Ω
R3352	ERD25TJ221	CARBON 0.25W 5% 220Ω
R3353	ERD25TJ561	CARBON 0.25W 5% 560Ω
R3354	ERD25TJ684	CARBON 0.25W 5% 680KΩ
R3501	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R3502	ERJ6GEYJ392	S.M.CARB 0.1W 5% 3K9Ω
R3503	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R3504	ERJ6GMYJ822	S.M.CARB 0.1W 5% 8K2Ω
R3506	ERD25TJ151	CARBON 0.25W 5% 150Ω
R3511	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R3512	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3513	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R3514	EVND4AA00B14	CONTROL 10KΩ
R3515	ERJ6GEYJ392	S.M.CARB 0.1W 5% 3K9Ω
R3516	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R3519	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3522	ERJ6GEYJ273	S.M.CARB 0.1W 5% 27KΩ
R3523	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3525	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R3528	ERJ6GMY0R00	S.M. WIRE LINK
R3529	ERJ6GMY0R00	S.M. WIRE LINK
R3530	ERQ14AJW100	METAL 0.25W 5% 10Ω ⚠
R3532	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R3533	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330Ω
R3534	ERJ6GMYJ750	S.M.CARB 0.1W 5% 75Ω
R3535	ERJ6GMYJ750	S.M.CARB 0.1W 5% 75Ω
R3536	ERJ6GMYJ750	S.M.CARB 0.1W 5% 75Ω
R3537	ERJ6GMY0R00	S.M. WIRE LINK
R3539	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3540	ERJ6GMY0R00	S.M. WIRE LINK
R3541	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3542	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3543	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R3544	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3545	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3546	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3547	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3548	ERJ6GMY0R00	S.M. WIRE LINK
R3549	ERJ6GMY0R00	S.M. WIRE LINK
R3554	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3556	ERJ6GMY0R00	S.M. WIRE LINK
R3564	ERJ6GEYJ220	S.M.CARB 0.1W 5% 22Ω
R3565	ERJ6GMY0R00	S.M. WIRE LINK
R3566	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3567	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R3568	ERJ6GMYJ822	S.M.CARB 0.1W 5% 8K2Ω
R3570	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3571	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3572	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3573	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330Ω
R3574	ERJ6GEYJ391	S.M.CARB 0.1W 5% 390Ω
R3580	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3582	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3584	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R3585	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R3586	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R3587	ERJ6GMY0R00	S.M. WIRE LINK
R3588	ERJ6GMY0R00	S.M. WIRE LINK
R3589	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180Ω
R3590	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180Ω
R3591	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180Ω
R3593	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R3594	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R3595	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R3596	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R3597	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R3598	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R3608	ERJ6GMY0R00	S.M. WIRE LINK

SWITCHES

S401	EVQRBAL10	SWITCH
S471	EVQRDSL12	SWITCH
S811	ESB99902V	POWER SWITCH⚠
S1105	EVQQBH12T	SWITCH
S1107	EVQQBH12G	SWITCH
S1110	EVQQBH12G	SWITCH
S1111	EVQQBH12G	SWITCH
S1112	EVQQBH12G	SWITCH
S1113	EVQQBH12T	SWITCH
S1114	EVQQBH12T	SWITCH
S1115	EVQQBH12T	SWITCH
S1116	EVQQBH12T	SWITCH
S1117	EVQQBH12T	SWITCH

TRANSFORMERS

T101	TLI156X52	TRANSFORMER
T531	ETH19Y53AY	TRANSFORMER
T551	TLF15567F	ALT/TLF15570B⚠
T821	ETS49AC187AD	TRANSFORMER
T1201	ETP35KE65E	TRANSFORMER⚠
T2001	TLS158X53Q1	TRANSFORMER

FILTERS

X101	G1962-M100	SAW FILTER
X103	TAFTPS5.5MB	CERAMIC FILTER
X106	TAFCSB503F6	FILTER
X601	TSS2003-M	CRYSTAL
X661	EFCA4434BF	FILTER
X1210	EFOGC6004A4	FILTER
X2001	TSS2139-M	CRYSTAL
X2002	TSS2061-N	CRYSTAL
X2101	TFCH334SK01	SAW FILTER
X2102	TAFSFE5.5MBF	CRYSTAL OSCILLATOR
X2103	TAFSFE5.5MBF	CRYSTAL OSCILLATOR
X2106	TAFSFE5.74MC	FILTER
X2107	TAFSFE5.74MC	FILTER
X2201	TSS2076-M	CRYSTAL
X3501	TSS2121-B	CRYSTAL
X3503	TSS2001-N1	CRYSTAL

REPLACEMENT PARTS LIST FOR MODEL TX-28X2E ONLY

Ref No.	Part No.	Description	
MISCELLANEOUS COMPONENTS			
1)	A66EDN43X38	C.R.T.	⚠
2)	TKP1382021	SPEAKER NET	
11)	TKY188103	CABINET	⚠
18)	TKU320103	REAR COVER	⚠
19)	TBM8E1389	REAR COVER LABEL	
	TPC8E4452	OUTER CARTON	
	TPD191574-1	CUSHION	
	TPD192569-1	CUSHION	

REPLACEMENT PARTS LIST FOR MODEL TX25X2E ONLY

Ref No.	Part No.	Description	
MISCELLANEOUS COMPONENTS			
1)	A59ECY13X38	C.R.T.	⚠
2)	TKP1758051	SPEAKER NET	
11)	TKY188503	CABINET	⚠
18)	TKU321102	REAR COVER	⚠
19)	TBM8E1388	REAR COVER LABEL	
	TPC8E4454	OUTER CARTON	
	TPD8E536-1	CUSHION	
	TPD8E537-1	BOTTOM CUSHION	